TOSHIBA Network Camera

IK-WB21A

Software Development Kit

Ver 1.00.SC

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History

Version	Page	Topics	Creator	T&D	Notes
1.00.SC		Release. Ver1.00.SC	T.Hamada	Mon Oct 03 2005	

Contents

I. About API

Firmware version corresponding to this specification >

The firmware version to which this specification is applicable is 'Version 0.35.E.020 or later'.

API protocol >

The base protocol of this API group is HTTP.

The HTTP server specifications of the IK-WB21A are as follows:

- HTTP Version 1.0
- Supports Keep-Alive

RFC2068 HTTP error code >

The error code to be notified from the HTTP server of the IK-WB21A is as follows:

Response code(RFC2068)	Meaning	Result Message
200	Success	HTTP/1.0 200 OK\r\n
301	Redirection	HTTP/1.0 301 Moved Permanently\r\n
302	Redirection	HTTP/1.0 302 Moved Temporarily\r\n
304	Client Error	HTTP/1.0 304 Not Modified\r\n
400	Client Error	HTTP/1.0 400 Bad Request\r\n
401	Client Error	HTTP/1.0 401 Unauthorized\r\n
403	Client Error	HTTP/1.0 403 Forbidden\r\n
404	Client Error	HTTP/1.0 404 Not Found\r\n
500	Server Error	HTTP/1.0 500 Server Error\r\n
501	Server Error	HTTP/1.0 501 Not Implemented\r\n
502	Server Error	HTTP/1.0 502 Bad Gateway\r\n
503	Server Error	HTTP/1.0 503 Service Unavailable\r\n
505	Server Error	HTTP/1.0 505 HTTP Version Not Supported\r\n

II. Comparison between WEB Setting Page and API functions

API types >

APIs are roughly classified into the following 6 types.

- Information setting type API
- Information reference type API
- Image/audio type API
- List operation type API
- External storage operation type API
- Pan/Tilt/Zoom/Focus (“PTZF”) operation type API

API Functions >

As a rule, all the items to be executed by the WEB setting page can also be set or referenced as the API.
The meanings of the codes in the table are:

O : All operable for the function.
X : All inoperable for the function.
: Partially inoperable for the function
- : The function is not applicable.

This is intended so that the function should be used depending on whether the using person is an administrator or user in an application.

Function list		WEB operation				API operation			
		Setting		Reference		Setting		Reference	
		Admin	User	Admin	User	Admin	User	Admin	User
Camera Settings	Basic	O	#	O	#	O	X	O	X
	Frame Rate	O	X	O	X	O	X	O	X
	Alarm	O	X	O	X	O	X	O	X
	Recording	O	X	O	X	O	X	O	X
	FTP Recording	O	X	O	X	O	X	O	X
	E-mail	O	X	O	X	O	X	O	X
	Audio	O	X	O	#	O	#	O	#

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Function list			WEB operation				API operation			
			Setting		Reference		Setting		Reference	
			Admin	User	Admin	User	Admin	User	Admin	User
PAN/TILT Settings	Basic		O	X	O	X	O	X	O	X
	Preset		O	X	O	X	O	X	O	X
	Auto Patrol		O	X	O	X	O	X	O	X
	Operation Range		O	X	O	X	O	X	O	X
Network Settings	Basic		O	X	O	X	O	X	O	X
	Bandwidth Control		O	X	O	X	O	X	O	X
	DDNS		O	X	O	X	O	X	O	X
	FTP Server		O	X	O	X	O	X	O	X
Multi-Screen Settings	Adding and Removing Cameras		O	X	O	X	O	X	O	X
Admin. Functions	Changing ID/Password	Admin	O	X	O	X	X	X	X	X
		User	O	X	O	X	X	X	X	X
	User Operation Restriction		O	X	O	X	O	X	O	X
	Date and Time		O	X	O	X	O	X	O	X
	FW Update		O	X	O	X	O	X	O	X
	Configuration	Import	O	X	-	-	O	X	-	-
		Export	O	X	-	-	O	X	-	-
		Reset to Default	O	X	O	X	O	X	O	X
		Camera	O	X	O	X	O	X	O	X
Log management	Filter Settings		O	X	O	X	O	X	O	X
	Browse		O	X	O	X	O	X	O	X
	Delete		O	X	O	X	O	X	O	X
Picture/Audio	LIVE Picture Stream		X Since the Viewer automatically calculates the parameters, User cannot adjust the stream.		O	O	O	O	O	O
	LIVE Picture One Shot				O	O	O	O	O	O
	PLAY Picture Stream				O	X	O	X	O	X
	LIVE Audio Stream				O	O	O	O	O	O
	Abort						O	O	O	O

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Function list	WEB operation				API operation			
	Setting		Reference		Setting		Reference	
	Admin	User	Admin	User	Admin	User	Admin	User
Reference All Information General Operation	O(Configuration Information)		O(Configuration Information)		O	X	O	X
List Operation	O (Camera - Recording) (Controller – Replay list)	X	O (Camera - Recording) (Controller – Replay list)	X	O	X	O	X
External Storage Operation	O	X	O	X	O	X	O	X
PTZF Operation	O	#	O	#	O	#	O	#

III. Restrictions on the API

When using this API group, take the following items into consideration.

1) Method type

API type		Method type	
		GET	POST
Information setting type API	wbset…type	O	X
Information reference type API	wbget…type	O	X
Image/audio type API	getstream…type	O	X
List operation type API	wblist…type	O	O
External storage operation type API	wbstorage…type	O	O
PTZF operation type API	pantiltapi/wbset…type	O	O

O : The API gives permission.
X : The API does not give permission.

2) URL decode

All parameters to API are URL-decoded. If inputted numeric '+5', API treats this character as '　5'. '　5' does not equal to '5'.

3) Client Cache

When the client is provided with a cache function like the WEB browser, the camera information at that time may not be obtained correctly, for example, like the information reference type API. Accordingly, take extreme care about the client cache.

4) Information output

The following informations to be output from this API are not the HTML format.

- Status
- Setting information

To obtain information by application, obtain the information for each row according to the output format described in this specification. After the API is executed by browser, its result may not be displayed in the output format described in this specification. In this case, open the output source of the browser by another editor. Then, the information can be read in a correct format. (For the status, refer to 'API termination status' that will be described in a later item.)

5) Security

All of these APIs require the basic authentication that is managed by 'administrator ID'. When executing each API, be sure to clear the basic authentication beforehand.

6) Reply status from the API

It may take some time to receive a reply status from the setting type API. To operate multiple APIs continuously, be sure to proceed to the next operation after receiving the previous API execution reply status.

IV. API List

The APIs available for the IK-WB21A are shown below as each of the 5 types.

Item		Menu		API name
Data Setting	Camera Settings	Basic		wbsetcambasic.cgi
		Frame Rate		wbsetcamframerate.cgi
		Alarm		wbsetcamalarm.cgi
		Recording		wbsetcamrecord.cgi
		FTP Recording		wbsetcamftprecord.cgi
		E-mail		wbsetcammail.cgi
		Audio		wbsetcamsound.cgi
	PAN/TILT Settings	Basic		wbsetptbasic.cgi
		Operation Range		
		Preset		wbsetptpreset.cgi
		Auto Patrol		wbsetptautopatrol.cgi
		Easy Preset Operations		wbpresetapi.cgi
	Network Settings	Basic		wbsetnwkbasic.cgi
		Bandwidth Control		wbsetnwkbandwidth.cgi
		DDNS		wbsetnwkddns.cgi
		FTP Server		wbsetnwkftpserver.cgi
	Multi-Screen Settings	Adding and Removing Cameras		wbsetmultiscreen.cgi
	Admin. Functions	User Login Restrinction		wbsetadminuserinfo.cgi
		User Operation Restriction		wbsetadminuserfunctions.cgi
		Date and Time	NTP	wbsetadminTaD.cgi
			Manual Setting	wbsetadmintime.cgi
		FW Update		-
		Configuration	Import	-
			Export	-
			Reset to Default	wbsetadminsetdefault.cgi
			Camera Rebooting	wbsetcamreboot.cgi
	Log Management	Filter Settings		wbsetlogconditions.cgi
		Delete		wbsetlogclear.cgi
Picture/ Audio	LIVE Picture	LIVE Picture Stream		getstream.cgi
		LIVE Picture One Shot		__live.jpg
	Alam Picture	PLAY Picture Stream		getstream.cgi
	LIVE Audio	LIVE Audio Stream		getstream.cgi
	Abort	Abort Stream		getstream.cgi

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Item		Menu		API name
Getting Data	Reference All Information			wbgetallinfo.cgi
	Getting Camera Informations	Basic		wbgetcambasic.cgi
		Frame Rate		wbgetframerate.cgi
		Alarm		wbgetcamalarm.cgi
		Recording		wbgetcamrecord.cgi
		FTP Recording		wbgetcamftprecord.cgi
		E-mail		wbgetcammail.cgi
		Audio		wbgetcamsound.cgi
	Getting PAN/TILT Informations	Basic		wbgetptbasic.cgi
		Operations Range		
		Preset		wbgetptpreset.cgi
		Auto Patrol		wbgetptautopatrol.cgi
		Easy Preset Management		wbpreset.cgi
	Getting Network Informations	Basic		wbgetnwkbasic.cgi
		Bandwidth Control		wbgetnwkbandwidth.cgi
		DDNS		wbgetnwkddns.cgi
		FTP Server		wbgetnwkftpserver.cgi
		MAC Address		wbgetnwkmac.cgi
	Multi-Screen Settings	Infrastructure of Cameras		wbgetmultiscreen.cgi
	Getting Administrator Settings	User Login Restriction		wbgetadminuserinfo.cgi
		User Operation Restriction		wbgetadminuserfunctions.cgi
		Date and Time	NTP	wbgetadminTaD.cgi
			Current Time	wbgetadmintime.cgi
		FW Update		-
		Configuration	Import	-
			Export	-
			Reset to Default	-
			Camera Rebooting	-
	Getting Log Settings	Log Filters		wbgetlogconditions.cgi
		Browse		wbgetloglist.cgi

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Item		Menu	API name
List Operation	Alarm In List Operation	Get Alarm In List	wblistalarm.cgi
		Delete Alarm In List(All)	
		Delete Alarm In List(Date and Time)	
	Normal List Operation	Get Normal List	wblistnormal.cgi
		Delete Normal List(All)	
		Delete Normal List(Date and Time)	
	Ext. Control In List Operation	Get Ext. Control In List	wblistextcontrol.cgi
		Delete Ext. Control In List(All)	
		Delete Ext. Control In List(Date and Time)	
Others	External Storage Operations	Notify Inserting Status	wbstoragestatus.cgi
		Mount/Unmount	wbstoragemount.cgi
		Notify Mounting Status	wbstoragemountstatus.cgi
		Format	wbstorageformat.cgi
	PTZF Operation	PAN/TILT Operation	wbpantiltapi.cgi
		ZOOM Operation	wbsetzoom.cgi
		FOCUS Operation	wbsetfocus.cgi
		IRIS Operation	wbsetiris.cgi
		Get current Pan/Tilt/Zoom Position	wbgetptzposition.cgi

V. API Termination Status

Termination status classification >

This API group notifies 'Termination code' and 'Termination status' except where image/audio data is notified to the client in the specified format when the getstream type API is successful.
The API termination status is not notified in the HTML format but a message such as shown above is notified in units of lines. If there is data that is notified from the camera, the message is sent starting from the next line of this termination status.

IK-WB21A recommends the client who has executed this API to reference this termination status.

However, regarding termination status except '20 OK', the API notifies only a single termination status even if multiple errors occur inside and outside the API. For this reason, there is a possibility that the client may receive a different status from the intended status.
Accordingly, we recommend checking the general-purpose termination status without expecting the status indicated by the output of each API.

Each termination status that is generally notified from the API group is shown below.

Terminate code	Meaning	Termination status	Details
20	Success	20 OK\r\n	Normal termination
30	Client Error	30 InvalidType\r\n	Illegal <type> was specified.
31	Client Error	31 InvalidEntry\r\n	Illegal <entry> name was specified.
32	Client Error	32 InvalidValue\r\n	Illegal <value> was set for <entry>.
33	Client Error	33 InvalidOperand\r\n	The argument format to the API is illegal.
34	Client Error	34 NoEntryData\r\n	<entry>=<value> is not specified.
35	Client Error	35 TooManyEntry\r\n	<entry>=<value> was specified exceeding the necessary number.
40	Server Error	40 FailToSave\r\n	Data registration failed.
41	Server Error	41 FailToGet\r\n	Data acquisition failed.
90	Server Error(Critical)	90 CriticalError\r\n	A fatal error occurred inside the camera.
91	Server Error(Critical)	91 FatalError\r\n	
92	Server Error(Critical)	92 CriticalError\r\n	

Next, the termination status limited to an API is shown below. This termination status may be notified by this API in addition to the above termination status.

1) Termination status limited to 'wblist' type cgi

Terminate code	Meaning	Termination status	Details
60	Server Error	60 FailAction\r\n	List acquisition failed.

2) Termination status limited to 'wbstorage' type cgi

Terminate code	Meaning	Termination status	Details
21	Notify	21 Inserted\r\n	The storage is inserted.
22	Notify	22 Mounted\r\n	The storage is mounted. (Available status)
71	Notify	71 NotInserted\r\n	The storage is not inserted.
72	Notify	72 NotMounted\r\n	The storage is not mounted. (Inserted)
73	Storage Error	73 FailedToMount\r\n	Mounting the storage failed.
74	Storage Error	74 FailedToFormat\r\n	Storage formatting failed.

3) Termination status limited to wbsetcamrecord.cgi/wbsetcamftprecord.cgi

Terminate code	Meaning	Termination status	Details
50	Client Warning	50 OKbutExtAlarmOFF\r\n	Though the registration related to the Alarm In was executed, the Alarm In function is set to "OFF".
51	Client Warning	51 OKbutMotionOFF\r\n	Though the registration related to motion detection was executed, the Motion Detecting function is set to "OFF".
52	Client Warning	52 OKbutExtControlOFF\r\n	Though the registration related to the Ext. Control In was executed, the Ext. Control In function is set to "OFF".

Input parameter and record control to log >

The API checks whether the input parameter (Input) has an appropriate format. For a request that does not meet the specified format, one of codes 30 to 35 will be notified.

Each API can specify an option by parameter as to whether the execution result is to be recorded in the log. This function can be specified as the entry 'OpeLog' and can be specified at any position that is behind the 'type' attribute.
Namely, the following two indicates all the same setting operation:

http://10.1.0.1/wbsetcambasic.cgi?type=Set&OpeLog=No&Resolution=3… (1)
http://10.1.0.1/wbsetcambasic.cgi?type=Set&Resolution=3&OpeLog=No

However, for the following, an error is notified because ‘OpeLog’ is specified ahead of the ‘type’ attribute as described before.

http://10.1.0.1/wbsetcambasic.cgi?OpeLog=No&type=Set&Resolution=3

For an API without the ‘type’ attribute like wbgetcambasic.cgi, there is no limitation on the arrangement of the entry ‘OpeLog’.

‘OpeLog’ is specified by ‘Yes’ or ‘No’. For the other specification, an error is notified. ‘OpeLog’ is an optional entry. If omitted, it is recognized as ‘OpeLog=Yes’ by API.

If an entry has an error, the recognition of the ‘OpeLog’ specification by API depends on whether the error occurs before ‘OpeLog’ is recognized or not. Namely;

http://10.1.0.1/wbsetcambasic.cgi?type=Set&OpeLog=No&Resolution=ABCDEFG

In the above case, the API detects the illegal value of Resolution after detecting ‘OpeLog=No’. Accordingly, if an error is detected by the API, it is not output to the log.

However;

http://10.1.0.1/wbsetcambasic.cgi?type=Set&Resolution=ABCDEFG&OpeLog=No

In the above case, the API detects the illegal value of Resolution before detecting ‘OpeLog=No’. When detecting an error in the Input parameter, the API proceeds internally to error notifying processing. Accordingly, ‘OpeLog=No’ is ignored, so that it is output to the log.

For this reason, when the output to the log is controlled by the client, it is recommended to describe the entry ‘OpeLog’ after the ‘type’ attribute as shown in (1).

Lastly, exceptions about the entry ‘OpeLog’ are shown below.
- In the getstream type API, the ‘OpeLog’ option cannot be specified.
- wbstorage type API, wblist type API, and wbsetadmincamreboot.cgi are free from the above restrictions, having a free format.

VI. IK-WB21A Setting Type API List

Item No.	Item	Sub-number	Menu		API name	Function type
1	Camera Settings	1-1	Basic		wbsetcambasic.cgi	2 types
		1-2	Frame Rate		wbsetcamframerate.cgi	2 types
		1-3	Alarm		wbsetcamalarm.cgi	4 types
		1-4	Recording		wbsetcamrecord.cgi	4 types
		1-5	FTP Recording		wbsetcamftprecord.cgi	10 types
		1-6	E-mail		wbsetcammail.cgi	16 types
		1-7	Audio		wbsetcamsound.cgi	3 types
2	PAN/TILT Settings	2-1	Basic/Operation Range		wbsetptbasic.cgi	7 types
		2-2	Preset		wbsetptpreset.cgi	65 types
		2-3	Auto Patrol		wbsetptautopatrol.cgi	3 types
3	Network Settings	3-1	Basic		wbsetnwkbasic.cgi	2 types
		3-2	Bandwidth Control		wbsetnwkbandwidth.cgi	2 types
		3-3	DDNS		wbsetnwkddns.cgi	2 types
		3-4	FTP Server		wbsetnwkftpserver.cgi	2 types
4	Multi-Screen Settings	4-1	Adding and Removing/Selecting Cameras		wbsetmultiscreen.cgi	33 types
5	Admin. Functions	5-1	User Login Restriction		wbsetadminuserinfo.cgi	2 types
		5-2	User Operation Restriction		wbsetadminuserfunctions.cgi	3 types
		5-3	Date and Time	NTP	wbsetadminTaD.cgi	4 types
		5-4		Manual	wbsetadmintime.cgi	1 type
		-	FW Update		-	-
		-	Configuration	Import/Export	-	-
		5-5		Reset to Default	wbsetadminsetdefault.cgi	1 type
		5-6		Camera Rebooting	wbsetadmincamreboot.cgi	1 type
6	Log Management	6-1	Filter Settings		wbsetlogconditions.cgi	2 types
		6-2	Delete		wbsetlogclear.cgi	1 type

1. Camera Settings

- wbsetcambasic.cgi - Basic Settings
- wbsetcamframerate.cgi - Frame Rate Settings
- wbsetcamalarm.cgi - Alarm Settings
- wbsetcamrecord.cgi - Recording Settings
- wbsetcamftprecord.cgi - FTP Recording Settings
- wbsetcammail.cgi - E-mail Settings
- wbsetcamsound.cgi - Audio Settings

wbset cam func .cgi

(1) (2) (3) (4)

(1) Indicates a setting API.
(2) Indicates a camera type setting API.
(3) Indicates the function matched to the WEB setting page.
(4) Every API is started and executed as cgi.

On and after the next page, the camera setting API is shown.

1.1 Basic Settings

wbsetcambasic.cgi

1.1.1 Syntax

1) http://<*camip*>/api/wbsetcambasic.cgi?type=Default
2) http://<*camip*>/api/wbsetcambasic.cgi?type=Set[&Resolution=<*value*>][&CompressionRatio=<*value*>][&...]

Note: Apprenthasis [] shown above is for description only and not used in actual command.

1.1.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
Reset to Default	type=Default	-	-	-	-
Resolution	type=Set	Resolution	1:160x120 (QQVGA) 2:320x240 (QVGA) 3:640x480 (VGA) 5:1280x960 (SXVGA)	3	-
CompressionRatio		CompressionRatio	1:Low 2:mid-Low 3:Standard 4:mid-High 5:High	3	-
Brightness adjustment		AEControl	-99 - +99	+0	-
Mounting method		Mounting	1:Ceiling mount 3:Desktop	1	-
Focus range		FocusRange	1:Standard(3ft. to infinity) 2:Macro(0.4 inch to 3ft.)	1	-
AF Detection Area		AFDetectionArea	1:All 2:Center	1	-
Auto B/W		AutoBW	1:OFF 2:ON	1	-
White Balance (WB)		WhiteBalance	1:Auto(AWB) 2:Indoor(Incandescent light color) 3:Indoor(Fluorescent light color) 4:Outdoor(sunlight) 5:Hold 6:Manual	1	-
WB manual GAIN-R		WBManualGainR	-99 - +99	+0	-
WB manual GAIN-B		WBManualGainB	-99 - +99	+0	-
AWB Ye/Cy offset		AWBOffsetYeCy	-20 - +20	+0	-

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Item	Type	Entry name	Entry value	Std.val	Unit
AWB Mg/G offset	(type=Set)	AWBOffsetMgG	-20 - +20	+0	-
AWB range		AWBRange	1:Standard 2:Wide	1	-
Auto gain control		AutoGainControl	1:OFF 2:Standard 3:Max	2	-
Slow shutter		SlowShutterMax	1:OFF(x1) 2:1/7.5s(x4) 3:1/3.75s(x8) 4:1/2.5s(x12) 5:1/1.8s(x16) 6:1s(x30) 7:2s(x60) 8:4s(x120)	3	-
Backlight compensation		BackLightCompensation	1:OFF 2:Upper 2/3(Area designation) 3:Lower 2/3(Area designation) 4:Center 1/3(Area designation) 5:Center 1/6(Area designation) 6:Left and Right(Area designation) 7:Auto	7	-
Sharpness		Sharpness	1:LOW 2:MIDDLE 3:HIGH	2	-
Color difference GAIN R-Y		GainRY	-20 - +20	+0	-
Color difference GAIN B-Y		GainBY	-20 - +20	+0	-
Noise reduction		NoiseReduction	1: LOW 2:MIDDLE 3:HIGH	1	-
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	-

1.1.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

20 OK\r\n
\r\n

This output format is common to other status and all other setting type APIs.

Note that the information to be notified from the IK-W21A has a format to display such text data as shown above in units of lines but not the HTML format.

1.1.4 Example

1) http://10.1.0.1/api/wbsetcambasic.cgi?type=Default
2) http://10.1.0.1/api/wbsetcambasic.cgi?type=Set&Resolution=3&CompressionRatio=5&AEControl=-19

1.1.5 Notes

1) If only type=<*value*> is entered and then <*entry*>=<*value*> is not entered, no setting is performed. (type=Default is an exception.)
2) Multiple type=<*value*> cannot be enumerated simultaneously. This API must be started for each type.
3) For only entered item, setting is performed. For the other items, their existing values are held.
4) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

1.2 Frame Rate Setting

wbsetcamframerate.cgi

1.2.1 Syntax

1) http://<*camip*>/api/wbsetcamframerate.cgi?type=Default
2) http://<*camip*>/api/wbsetcamframerate.cgi?type=Set[&Rate=<*value*>]

1.2.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
Reset to Default	type=Default	-	-	-	-
Frame rate	type=Set	Rate	1:30 2:15 3:7.5 4:3 5:2 6:1 7:1/2 8:1/5 9:1/10	1	frame/ second
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	-

1.2.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

1.2.4 Example

1) http://10.1.0.1/api/wbsetcamframerate.cgi?type=Default
2) http://10.1.0.1/api/wbsetcamframerate.cgi?type=Set&Rate=30

1.2.5 Notes

1) If only type=<*value*> is entered and then <*entry*>=<*value*> is not entered, no setting is performed. (type=Default is an exception.)
2) Multiple type=<*value*> cannot be enumerated simultaneously. This API must be started for each type.
3) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

1.3 Alarm Settings

wbsetcamalarm.cgi

1.3.1 Syntax

1) http://<*camip*>/api/wbsetcamalarm.cgi?type=Default
2) http://<*camip*>/api/wbsetcamalarm.cgi?type=AlarmType[&Mode=<*value*>][&InputPolarity=<*value*>]
3) http://<*camip*>/api/wbsetcamalarm.cgi?type=MotionDetection[&Mode=<*value*>]
4) http://<*camip*>/api/wbsetcamalarm.cgi?type=HoldingOutTime[&Time=<*value*>]

1.3.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
Reset to Default	type=Default	-	-	-	
Alarm functions	type=AlarmType	Mode	1:OFF 2:Alarm In 3:Ext. Control In	1	
Input type		InputPolarity	1:Normal Opened 2:Normal Closed	1	
Motion detection	type=MotionDetection	Mode	1:OFF 2:ON	1	
Motion sensitivity		Sensitivity	1:HIGH 2:MIDDLE 3:LOW	1	
Output hold time	type=HoldingOutTime	Time	1/5/10/15/30/60	5	second
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	

1.3.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

1.3.4 Example

1) http://10.1.0.1/api/wbsetcamalarm.cgi?type=Default
2) http://10.1.0.1/api/wbsetcamalarm.cgi?type=AlarmType&Mode=2&InputPolarity=1
3) http://10.1.0.1/api/wbsetcamalarm.cgi?type=MotionDetection&Mode=2
4) http://10.1.0.1/api/wbsetcamalarm.cgi?type=HoldingOutTime&Time=10

1.3.5 Notes

1) If only type=<*value*> is entered and then <*entry*>=<*value*> is not entered, no setting is performed. (type=Default is an exception.)
2) Multiple type=<*value*> cannot be enumerated simultaneously. This API must be started for each type.
3) For only entered item, setting is performed. For the other items, their existing values are held.
4) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

1.4 Recording Settings

wbsetcamrecord.cgi

1.4.1 Syntax

1) http://<*camip*>/api/wbsetcamrecord.cgi?type=Default
2) http://<*camip*>/api/wbsetcamrecord.cgi?type=Alarm[&AlarmInRecMode=<*value*>][&MotionRecMode=<*value*>][&...]
3) http://<*camip*>/api/wbsetcamrecord.cgi?type=Normal[&Mode=<*value*>][&Monday=<*value*>][&...]
4) http://<*camip*>/api/wbsetcamrecord.cgi?type=RecOverwriting[&Mode=<*value*>]

1.4.2 Input

Item		Type	Entry name	Entry value	Std.val	Unit
Reset to Default		type=Default	-	-	-	-
Alarm In Rec. ON/OFF		type=Alarm	AlarmInRecMode	1:OFF 2:ON	1	-
Ext. Control In Rec. ON/OFF			ExtControlInRecMode	1:OFF 2:ON	1	-
Motion Detection Rec. ON/OFF			MotionRecMode	1:OFF 2:ON	1	-
Pre-Recording			NumberOfPrePicture	0/3/5/10	3	frames
Post-Recording			NumberOfPostPicture	0/3/5/10/20	10	frames
Recording Cycle			Interval	-33/-66/-100/-200/-333/-500/ 1/2/3/5/10/30/60/120/180 # -33:1/30 -66:1/15 -100:1/10 -200:1/5 -333:1/3 -500:1/2	10	second
Continuous Rec. ON/OFF		type=Normal	Mode	1:OFF 2:ON	1	-
Schedule	Monday		Monday	1:OFF 2:All Day 3: Schedule 1 4: Schedule 2	1	-
	Tuesday		Tuesday		1	-
	Wednesday		Wednesday		1	-
	Thursday		Thursday		1	-
	Friday		Friday		1	-
	Saturday		Saturday		1	-
	Sunday		Sunday		1	-
Schedule-1; start time			Pattern1Start	0 - 23 # 0:0am 1:1am … 11:11am 12:0pm 13:1pm … 22:10pm 23:11pm	8	hour
Schedule-1; end time			Pattern1End		17	hour
Schedule-2; start time			Pattern2Start		8	hour
Schedule-2; end time			Pattern2End		17	hour

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Item	Type	Entry name	Entry value	Std.val	Unit
Recording Cycle	(type=Normal)	Interval	1/2/3/5/10/30/60/120/180	60	second
Overwrite	type=RecOverwriting	Mode	1:OFF 2:ON	1	-
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	-

1.4.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry
32	InvalidValue

Code	Status
33	InvalidOperand
34	NoEntryData
50	OKbutExtAlarmOFF
51	OKbutMotionOFF

Code	Status
52	OKbutExtControlOFF
92	CriticalError

- 50: Although registration succeeded under conditions of both type=alarm and AlarmInRecMode=2, the Alarm In function is set to “OFF”. (Ref. Alarm Settings)
- 51: Although registration succeeded under conditions of both type=alarm and MotionRecMode=2, the Motion Detection function is set to “OFF”. (Ref. Alarm Settings)
- 52: Although registration succeeded under conditions of both type=alarm and ExtControlInRecMode=2, the Ext. Control In function is set to “OFF”. (Ref. Alarm Settings)

1.4.4 Example

1) http://10.1.0.1/api/wbsetcamrecord.cgi?type=Default
2) http://10.1.0.1/api/wbsetcamrecord.cgi?type=Alarm&AlarmInRecMode=1&ExtControlInRecMode=2&MotionRecMode=2&NumberOfPrePicture=3&NumberOfPostPicture=10
3) http://10.1.0.1/api/wbsetcamrecord.cgi?type=Normal&Mode=1
4) http://10.1.0.1/api/wbsetcamrecord.cgi?type=RecOverwriting&Mode=1

1.4.5 Notes

1) If only type=<*value*> is entered and then <*entry*>=<*value*> is not entered, no setting is performed. (type=Default is an exception.)
2) Multiple type=<*value*> cannot be enumerated simultaneously. This API must be started for each type.
3) For only entered item, setting is performed. For the other items, their existing values are held.
4) OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.
5) If both AlarmInRecMode=2 and MotionRecMode=2 are simultaneously specified in the alarm setting OFF status at type=Alarm, the ‘Alarm In’ status always has priority at status notification.

1.5 FTP Recording Settings

wbsetcamftprecord.cgi

1.5.1 Syntax

1) http://<*camip*>/api/wbsetcamftprecord.cgi?type=Default
2) http://<*camip*>/api/wbsetcamftprecord.cgi?type=FTPCondition[&Mode=<*value*>][&AlarmInMode=<*value*>][&...]
3) http://<*camip*>/api/wbsetcamftprecord.cgi?type=Server-1[&Name=<*value*>][&LoginID=<*value*>][&...]
4) http://<*camip*>/api/wbsetcamftprecord.cgi?type=Server-2[&Name=<*value*>][&LoginID=<*value*>][&...]
5) http://<*camip*>/api/wbsetcamftprecord.cgi?type=AttachedPicture[&Size=<*value*>]
6) http://<*camip*>/api/wbsetcamftprecord.cgi?type=HowToUse[&Detail=<*value*>]
7) http://<*camip*>/api/wbsetcamftprecord.cgi?type=bySchedule[&Monday=<*value*>][&Tuesday=<*value*>][&...]
8) http://<*camip*>/api/wbsetcamftprecord.cgi?type=byAlarm[&NumberOfPrePicture=<*value*>][&...]
9) http://<*camip*>/api/wbsetcamftprecord.cgi?type=byExtControlIn[&Interval=<*value*>][&FileName=<*value*>][&...]
10) http://<*camip*>/api/wbsetcamftprecord.cgi?type=Accumulation[&Mode=<*value*>][&Interval=<*value*>][&...]

1.5.2 Input

Item		Type	Entry name	Entry value	Std.val	Unit
Reset to Default		type=Default	-	-	-	-
FTP Record Conditions		type=FTPCondition	Mode	1:OFF 2:Scheduled Recording 3:Recording by Alarm In 4:Recoding by Ext. Control In	1	-
Alarm In mode when Alarm Rec. is checked.			AlarmInMode	1:OFF 2:Checked	1	-
Motion Detection mode when Alarm Rec. is checked.			MotionMode	1:OFF 2:Checked	1	-
1st FTP server	server name	type=Server-1	Name	any (max.128 bytes)		-
	Login ID		LoginID	any (max.32 bytes)		-
	Password		Password	any (max.32 bytes)		-
	Port number		FTPcPortNumber	any (1-65535)	21	-
	FTP mode		FTPMode	1:PORT 2:PASV	1	-
	Connecting method		ConnectMode	1:Reconnect 2:Continuous Connection	1	-

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Item		Type	Entry name	Entry value	Std.val	Unit
2nd FTP server	server name	type=Server-2	Name	any (max.128 bytes)		-
	Login ID		LoginID	any (max.32 bytes)		-
	Password		Password	any (max.32 bytes)		-
	Port number		FTPcPortNumber	any (1-65535)	21	-
	FTP mode		FTPMode	1:PORT 2:PASV	1	-
	Connecting method		ConnectMode	1:Reconnect 2:Continuous Connection	1	-
Transfer image		type=AttachedPicture	Size	1:160x120 (QQVGA) 2:320x240 (QVGA) 3:640x480 (VGA) 5:1280x960 (SXVGA)	2	-
			FileNameMode	1: with Time Stamp 2: Fixed	1	
FTP server usage mode		type=HowToUse	Detail	Primary Sw2itch 1: Server-1 OFF 2: Server-1 ON 3: Server-2 OFF 4: Server-2 ON	1	-
Schedule	Monday	type=bySchedule	Monday	1:OFF 2:All Day 3:Schedule 1 4:Schedule 2	1	-
	Tuesday		Tuesday		1	-
	Wednesday		Wednesday		1	-
	Thursday		Thursday		1	-
	Friday		Friday		1	-
	Saturday		Saturday		1	-
	Sunday		Sunday		1	-
Schedule-1; start time			Pattern1Start	0 - 23 # 0:0am 1:1am … 11:11am 12:0pm 13:1pm … 22:10pm 23:11pm	8	hour
Schedule-1; end time			Pattern1End		17	hour
Schedule-2; start time			Pattern2Start		8	hour
Schedule-2; end time			Pattern2End		17	hour

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Item		Type	Entry name	Entry value	Std.val	Unit
Recording Cycle		(type=bySchedule)	Interval	-33/-66/-100/-200/-333/-500/1/2/3/5/ 10/30/60/120/180 # -33:1/30 -66:1/15 -100:1/10 -200:1/5 -333:1/3 -500:1/2	1	second
Record file name			FileName	any (max.16 bytes)		-
Server path	1st FTP server		Server1Path	any (max.128 bytes)		-
	2nd FTP server		Server2Path	any (max.128 bytes)		-
Pre-Recording		type=byAlarm	NumberOfPrePicture	0/3/5/10	10	frames
Post-Recording			NumberOfPostPicture	0/3/5/10/20	10	frames
Recording Cycle			Interval	-33/-66/-100/-200/-333/-500/1/2/3/5/ 10/30/60/120/180 # -33:1/30 -66:1/15 -100:1/10 -200:1/5 -333:1/3 -500:1/2	1	second
Recording file name	Alarm In		AiFileName	any (max.16 bytes)		-
	Motion Detection		MdFileName	any (max.16 bytes)		-
Server path	1st FTP server		Server1Path	any (max.128 bytes)		-
	2nd FTP server		Server2Path	any (max.128 bytes)		-
Recording Cycle		type=byExtControlIn	Interval	-33/-66/-100/-200/-333/-500/1/2/3/5/ 10/30/60/120/180 # -33:1/30 -66:1/15 -100:1/10 -200:1/5 -333:1/3 -500:1/2	1	second
Record file name			FileName	any (max.16 bytes)		-
Server path	1st FTP server		Server1Path	any (max.128 bytes)		-
	2nd FTP server		Server2Path	any (max.128 bytes)		-
Backup mode		type=Accumulation	Mode	1:OFF 2:ON	1	-
Accumulation Cycle			Interval	1/2/5/10/15/30/60/120/300/600/900/ 1800/3600	60	second
Overwrite			OverWriting	1:OFF 2:ON	1	-
Log output control of cgi common to all types			OpeLog	No/Yes [default: Yes] (omissible)	-	-

1.5.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry
32	InvalidValue

Code	Status
33	InvalidOperand
34	NoEntryData
50	OKbutExtAlarmOFF
51	OKbutMotionOFF

Code	Status
52	OKbutExtControlOFF
92	CriticalError

- 50: Although registration succeeded under conditions of type=FTPCondition, Mode=3 and AlarmInMode =2, the Alarm In function is set to “OFF”. (Ref. Alarm Settings)
- 51:Although registration succeeded under conditions of type=FTPCondition, Mode=3 and MotionMode=2, the Motion Detection function is set to “OFF”. (Ref. AlarmSettings)
- 52:Although registration succeeded under conditions of both type=FTPCondition and Mode=4, the Ext. Control In function is set to “OFF”. (Ref.Alarm Settings)

1.5.4 Example

1) http://10.1.0.1/api/wbsetcamftprecord.cgi?type=Default
2) http://10.1.0.1/api/wbsetcamftprecord.cgi?type=FTPCondition&Mode=3&AlarmInMode=2&MotionMode=2
3) http://10.1.0.1/api/wbsetcamftprecord.cgi?type=Server-1&Name=FTPs&LoginID=<*base64enc*>&Password=<*basee64enc*>
4) http://10.1.0.1/api/wbsetcamftprecord.cgi?type=Server-2&Name=FTPs&LoginID=<*base64enc*>&Password=<*basee64enc*>
5) http://10.1.0.1/api/wbsetcamftprecord.cgi?type=AttachedPicture&Size=3
6) http://10.1.0.1/api/wbsetcamftprecord.cgi?type=HowToUse&Detail=1
7) http://10.1.0.1/api/wbsetcamftprecord.cgi?type=bySchedule&Interval=5&AiFileName=_ext_&MdFileName=_mtd_
8) http://10.1.0.1/api/wbsetcamftprecord.cgi?type=byAlarm&Interval=10
9) http://10.1.0.1/api/wbsetcamftprecord.cgi?type=byExtControlIn&Interval=10&FileName=extc&Server1Path=/cam/jpge
10) http://10.1.0.1/api/wbsetcamftprecord.cgi?type=Accumulation&Mode=2&Interval=10

1.5.5 Notes

1) If only type=<*value*> is entered and then <*entry*>=<*value*> is not entered, no setting is performed. (type=Default is an exception.)
2) Multiple type=<*value*> cannot be enumerated simultaneously. This API must be started for each type.
3) When LoginID/Password is specified at type=Server-1/2, these must be base64-encoded.
4) When a blank character is included in <*value*>, it must be URL-encoded.
5) For only entered items, setting is performed. For the other items, their existing values are held.
6) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.
7) **Be very careful that the value of ‘Detail’ entry of type=HowToUse differs from the entry format of WEB setting page.**

1.6 Mail Settings

wbsetcammail.cgi

1.6.1 Syntax

1) http://<*camip*>/api/wbsetcammail.cgi?type=Default
2) http://<*camip*>/api/wbsetcammail.cgi?type=Authentication[&Mode=<*value*>][&SMTPServer=<*value*>][&…]
3) http://<*camip*>/api/wbsetcammail.cgi?type=ConditionByAlarmIn[&Mode=<*value*>][&Subject=<*value*>][&…]
4) http://<*camip*>/api/wbsetcammail.cgi?type=ConditionByMotion[&Mode=<*value*>][&Subject=<*value*>][&…]
5) http://<*camip*>/api/wbsetcammail.cgi?type=AttachSize[&AttachSize=<*value*>]
6) http://<*camip*>/api/wbsetcammail.cgi?type=Recipient[&MustSendAdminMode=<*value*>]
7) http://<*camip*>/api/wbsetcammail.cgi?type=MailTo-***n***[&RecipientAddr=<*value*>][&AlarmIn=<*value*>][&Motion=<*value*>] (***n***:1-10)

1.6.2 Input

Item		Type	Entry name	Entry value	Std.val	Unit
Reset to Default		type=Default	-	-	-	-
Authentication		type=Authentication	Mode	1:No authetication 2:POP	1	-
SMTP server name			SMTPServer	any (max.128 bytes)		-
POP3	Server name		POP3Server	any (max.128 bytes)		-
	User ID		POP3ID	any (max.32 bytes)		-
	Password		POP3Password	any (max.32 bytes)		-
Administrator e-mail address			AdminMailAddr	any (max.64 bytes)		-
E-mail sending by Alarm In		type=ConditionByAlarmIn	Mode	1:OFF 2:ON	1	-
Subject			Subject	any (max.64 bytes)		-
Message			Body	any (max.128 bytes)		-
URL	Send URL		URLMode	1:OFF 2:ON	1	-
	URL Information		URLInfo	any (max.128 bytes)		-
Attach Image			AttachMode	1:OFF 2:ON	1	-
E-mail sending by Alarm In		type=ConditionByMotion	Mode	1:OFF 2:ON	1	-
Subject			Subject	any (max.64 bytes)		-
Message			Body	any (max.128 bytes)		-
URL	Send URL		URLMode	1:OFF 2:ON	1	-
	URL Information		URLInfo	any (max.128 bytes)		-
Attach Image			AttachMode	1:OFF 2:ON	1	-

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Item	Type	Entry name	Entry value	Std.val	Unit
Attached image size	type=AttachSize	AttachSize	1:160x120 (QQVGA) 2:320x240 (QVGA) 3:640x480 (VGA) 5:1280x960 (SXVGA)	1	-
Always send to administrator e-mail address	type=Recipient	MustSendAdminMode	1:OFF 2:ON	1	-
Send-to mail address -1	type=MailTo-1	RecipientAddr	any (max.64 bytes)		-
Send when Alarm IN		AlarmIn	1:OFF 2:Checked	1	-
Send when Motion detected		Motion	1:OFF 2:Checked	1	-
Send-to mail address -2	type=MailTo-2	RecipientAddr	any (max.64 bytes)		-
Send when Alarm IN		AlarmIn	1:OFF 2:Checked	1	-
Send when Motion detected		Motion	1:OFF 2:Checked	1	-
Send-to mail address -3	type=MailTo-3	RecipientAddr	any (max.64 bytes)		-
Send when Alarm IN		AlarmIn	1:OFF 2:Checked	1	-
Send when Motion detected		Motion	1:OFF 2:Checked	1	-
Send-to mail address -4	type=MailTo-4	RecipientAddr	any (max.64 bytes)		-
Send when Alarm IN		AlarmIn	1:OFF 2:Checked	1	-
Send when Motion detected		Motion	1:OFF 2:Checked	1	-
Send-to mail address -5	type=MailTo-5	RecipientAddr	any (max.64 bytes)		-
Send when Alarm IN		AlarmIn	1:OFF 2:Checked	1	-
Send when Motion detected		Motion	1:OFF 2:Checked	1	-
Send-to mail address -6	type=MailTo-6	RecipientAddr	any (max.64 bytes)		-
Send when Alarm IN		AlarmIn	1:OFF 2:Checked	1	-
Send when Motion detected		Motion	1:OFF 2:Checked	1	-
Send-to mail address -7	type=MailTo-7	RecipientAddr	any (max.64 bytes)		-
Send when Alarm IN		AlarmIn	1:OFF 2:Checked	1	-
Send when Motion detected		Motion	1:OFF 2:Checked	1	-

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From the last page.

Item	Type	Entry name	Entry value	Std.val	Unit
Send-to mail address -8	type=MailTo-8	RecipientAddr	any (max.64 bytes)		-
Send when Alarm IN		AlarmIn	1:OFF 2:Checked	1	-
Send when Motion detected		Motion	1:OFF 2:Checked	1	-
Send-to mail address -9	type=MailTo-9	RecipientAddr	any (max.64 bytes)		-
Send when Alarm IN		AlarmIn	1:OFF 2:Checked	1	-
Send when Motion detected		Motion	1:OFF 2:Checked	1	-
Send-to mail address -10	type=MailTo-10	RecipientAddr	any (max.64 bytes)		-
Send when Alarm IN		AlarmIn	1:OFF 2:Checked	1	-
Send when Motion detected		Motion	1:OFF 2:Checked	1	-
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	-

1.6.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

1.6.4 Example

1) http://10.1.0.1/api/wbsetcammail.cgi?type=Default
2) http://10.1.0.1/api/wbsetcammail.cgi?type=Authentication&Mode=1&SMTPServer=www.hogehoge.com
3) http://10.1.0.1/api/wbsetcammail.cgi?type=ConditionByAlarmIn&Mode=1
4) http://10.1.0.1/api/wbsetcammail.cgi?type=ConditionByMotion&Mode=2&Subject=Motion&Body=Detection
5) http://10/1.0.1/api/wbsetcammail.cgi?type=AttachSize&AttachSize=3
6) http://10.1.0.1/api/wbsetcammail.cgi?type=Recipient&MustSendAdminMode=2
7) http://10.1.0.1/api/wbsetcammail.cgi?type=MailTo-1&RecipientAddr=hoge@hogehoge.com&AlarmIn=1&Motion=2

1.6.5 Notes

1) If only type=<*value*> is entered and then <*entry*>=<*value*> is not entered, no setting is performed. (type=Default is an exception.)
2) Multiple type=<*value*> cannot be enumerated simultaneously. This API must be started for each type.
3) When POP3-ID/POP3-Password is specified at type=Authentication, these must be base64-encoded.
4) When a blank character is included in <*value*>, it must be URL-encoded.
5) For only entered items, setting is performed. For the other items, their existing values are held.
6) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

1.7 Audio Settings

wbsetcamsound.cgi

1.7.1 Syntax

1) http://<*camip*>/api/wbsetcamsound.cgi?type=Default
2) http://<*camip*>/api/wbsetcamsound.cgi?type=Input[&Mode=<*value*>][&Level=<*value*>]
3) http://<*camip*>/api/wbsetcamsound.cgi?type=Output[&Mode=<*value*>][&Level=<*value*>]

1.7.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
Reset to Default	type=Default	-	-	-	-
Audio input	type=Input	Mode	1:OFF 2:ON	1	-
Audio input level		Level	1:HIGH 2:MIDDLE 3:LOW	2	-
Audio output	type=Output	Mode	1:OFF 2:ON	1	-
Audio output level		Level	1:HIGH 2:MIDDLE 3:LOW	2	-
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	-

1.7.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

1.7.4 Example

1) http://10.1.0.1/api/wbsetcamsound.cgi?type=Default
2) http://10.1.0.1/api/wbsetcamsound.cgi?type=Input&Mode=2&Level=1
3) http://10.1.0.1/api/wbsetcamsound.cgi?type=Output&Mode=1

1.7.5 Notes

1) If only type=<*value*> is entered and then <*entry*>=<*value*> is not entered, no setting is performed. (type=Default is an exception.)
2) Multiple type=<*value*> cannot be enumerated simultaneously. This API must be started for each type.
3) For only entered items, setting is performed. For the other items, their existing values are held.
4) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

2. PAN/TILT Settings

- wbsetptbasic.cgi - Basic Settings
- wbsetptpreset.cgi - Preset Settings
- wbsetptautopatrol.cgi - Auto Patrol Settings
- wbpresetapi.cgi - Easy Preset Operations

wbset pt func .cgi

(1) (2) (3) (4)

(1) Indicates a setting API.
(2) Indicates a PAN/TILT type setting API.
(3) Indicates the function matched to the WEB setting page.
(4) Every API is started and executed as cgi.

wbpresetapi .cgi

(5) (6)

(5) Indicates an Easy Preset operation API.
(6) This API is executed as cgi.

The Pan/Tilt setting API is shown on following pages.

2.1 Basic Settings

wbsetptbasic.cgi

2.1.1 Syntax

1) http://<*camip*>/api/wbsetptbasic.cgi?type=Default
2) http://<*camip*>/api/wbsetptbasic.cgi?type=PTCondition[&ScanSpeed=<*value*>][&PowerUp=<*value*>][&…]
3) http://<*camip*>/api/wbsetptbasic.cgi?type=AssociationToAlarm[&Mode=<*value*>][&PTByAlarmIn=<*value*>][&…]
4) http://<*camip*>/api/wbsetptbasic.cgi?type=LeftLimitSetting[&Mode=<*value*>][&Degree=<*value*>]
5) http://<*camip*>/api/wbsetptbasic.cgi?type=RightLimitSetting[&Mode=<*value*>][&Degree=<*value*>]
6) http://<*camip*>/api/wbsetptbasic.cgi?type=TopLimitSetting[&Mode=<*value*>][&Degree=<*value*>]
7) http://<*camip*>/api/wbsetptbasic.cgi?type=BottomLimitSetting[&Mode=<*value*>][&Degree=<*value*>]

2.1.2 Input

Item		Type	Entry name	Entry value	Std.val	Unit
Reset to Default		type=Default	-	-	-	-
Scan Speed		type=PTCondition	ScanSpeed	1:Slow 2:Fast	1	-
Power on default position			PowerUp	1:CENETER 2:HOME 3:SCAN 4:AutoPATROL	1	-
Freeze Frame			FreezeFrame	1:OFF 2:ON	1	-
Alarm association		type=AssociationToAlarm	Mode	1:OFF 2:Preset 3:Auto Patrol	1	-
Alarm association type	Alarm In		PTByAlarmIn	1:OFF 2:checked	1	-
	Motion		PTByMotion	1:OFF 2:checked	1	-
PresetNumber			PresetNumber	select from 1 to 64	1	-
Resume function			Resume	1:OFF 2:ON	1	-
Resume time			ResumeTime	10/30/60	60	second
Left limit		type=LeftLimitSetting	Mode	1:OFF 2:ON	1	-
Left limit position			Degree	0 - 7716	0	-
Right limit		type=RightLimitSetting	Mode	1:OFF 2:ON	1	-
Right limit position			Degree	0 - 7716	7716	-
Top limit		type=TopLimitSetting	Mode	1:OFF 2:ON	1	-
Top limit position			Degree	0 - 2627	2627	-

To the next page.

From the last page.

Item	Type	Entry name	Entry value	Std.val	Unit
Bottom limit	type=BottomLimitSetting	Mode	1:OFF 2:ON	1	-
Bottom limit position		Degree	0 - 2627	0	-
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	-

2.1.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

2.1.4 Example

1) http://10.1.0.1/api/wbsetptbasic.cgi?type=Default
2) http://10.1.0.1/api/wbsetptbasic.cgi?type=PTCondition&ScanSpeed=2&PowerUp=4&FreezeActivity=2
3) http://10.1.0.1/api/wbsetptbasic.cgi?type=AssociationToAlarm&Mode=2&PTByMotion=2&PresetNumber=33&Resume=1
4) http://10.1.0.1/api/wbsetptbasic.cgi?type=LeftLimitSetting&Mode=2&Degree=175
5) http://10.1.0.1/api/wbsetptbasic.cgi?type=RightLimitSetting&Mode=1
6) http://10.1.0.1/api/wbsetptbasic.cgi?type=TopLimitSetting&Mode=2&Degree=175
7) http://10.1.0.1/api/wbsetptbasic.cgi?type=BottomLimitSetting&Mode=1

2.1.5 Notes

1) If only type=Set is entered and then <*entry*>=<*value*> is not entered, no setting is performed. (type=Default is an exception.)
2) Multiple type=<*value*> cannot be enumerated simultaneously. This API must be started for each type.
3) For only entered items, setting is performed. For the other items, their existing values are held.
4) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.
5) Setting values of “Degree” is defined in Appendix C.

2.2 Preset Settings

wbsetptpreset.cgi

2.2.1 Syntax

1) http://<camip>/api/wbsetptpreset.cgi?type=Default
2) http://<camip>/api/wbsetptpreset.cgi?type=PresetNumber-1[&PresetName=<value>][&PanPostion=<*value*>][&…]
   ……
3) http://<camip>/api/wbsetptpreset.cgi?type=PresetNumber-64[&PresetName=<value>][&PanPostion=<*value*>][&…]

2.2.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
Reset to Default	type=Default	-	-	-	-
Preset name	type=PresetNumber-1	PresetName	any (max.12 bytes)		-
Pan position		PanPosition	0 - 7716/32767	32767	degree
Tilt position		TiltPosition	0 - 2627/32767	32767	degree
Zoom position		ZoomPosition	0 - 15		-
Focus		Focus	any (This parameter is ignored.)		-
Focus type		FocusType	1 (must be 1.)		-
……					
Preset name	type=PresetNumber-64	PresetName	any (max.12 bytes)		-
Pan position		PanPosition	0 - 7716/32767	32767	degree
Tilt position		TiltPosition	0 - 2627/32767	32767	degree
Zoom position		ZoomPosition	0 - 15		-
Focus		Focus	any (This parameter is ignored.)		-
Focus type		FocusType	1 (must be 1.)		-
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	-

2.2.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

2.2.4 Example

1) http://10.1.0.1/api/wbsetptpreset.cgi?type=Default

2) http://10.1.0.1/api/wbsetptpreset.cgi?type=PresetNumber-1&PresetName=One%20Ein

2.2.5 Note

1) If only type=Set is entered and then <*entry*>=<*value*> is not entered, no setting is performed. (type=Default is an exception.)
2) Multiple type=<*value*> cannot be enumerated simultaneously. This API must be started for each type.
3) For only entered items, setting is performed. For the other items, their existing values are held.
4) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.
5) Setting values of “PanPosition” and “TiltPosition” is defined in Appendix C.
6) This API defines preset number by indicating both Pan and Tilt positions. This function is different from “webpresetapi.cgi” which sets current position as assigned preset number.

2.3 Auto Patrol Settings

wbsetptautopatrol.cgi

2.3.1 Syntax

1) http://<*camip*>/api/wbsetptautopatrol.cgi?type=Default
2) http://<*camip*>/api/wbsetptautopatrol.cgi?type=StayTime[&StayTime=<*value*>]
3) http://<*camip*>/api/wbsetptautopatrol.cgi?type=AutoPatrolStopNumber[&PresetNumber-1=<*value*>][&PresetNumber-2=<*value*>][&…]

2.3.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
Reset to Default	type=Default	-	-	-	-
Auto patrol stop time	type=StayTime	StayTime	1/2/5/10	1	minute
Preset number -1	type=AutoPatrolStopNumber	PresetNumber-1	1:OFF 2:Checked	1	-
……		……			
Preset number -64		PresetNumber-64	1:OFF 2:Checked	1	-
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	-

2.3.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

2.3.4 Example

1) http://10.1.0.1/api/wbsetptautopatrol.cgi?type=Default
2) http://10.1.0.1/api/wbsetptautopatrol.cgi?type=StayTime&StayTime=10
3) http://10.1.0.1/api/wbsetptautopatrol.cgi?type=AutoPatrolStopNumber&PresetNumber-1=2&PresetNumber-33=2

2.3.5 Note

1) If only type=<*value*> is entered and then <*entry*>=<*value*> is not entered, no setting is performed. (type=Default is an exception.)
2) Multiple type=<*value*> cannot be enumerated simultaneously. This API must be started for each type.
3) For only entered items, setting is performed. For the other items, their existing values are held.
4) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

2.4 Easy Preset Assignment

wbpresetapi.cgi

2.4.1 Syntax

1) http://<*camip*>/api/wbpresetapi.cgi?cont 4=<*PresetID*>&savesysvar
2) http://<*camip*>/api/wbpresetapi.cgi?cont 4=<*PresetID*>&<*presetnameID*>=<*value*>&savesysvar

2.4.2 Input

Item	Entry name	Entry value	Std.val	Unit
Preset ID for registration	cont_4	<*presetID*>	-	-
Preset name for registration	<*presetnameID*>	any (max. 12 bytes)	-	-
Save this preset information	savesysvar	-	-	-

<presetID> is determined by the following method:

<presetID> = 512 + <presetNumber>

For example, to assign Preset Number 1, the parameter would be 'cont_4=513'

Next, the indication of the <*presetnameID*> is shown.

presetname_***n***, where ***n*** is the Preset Number (***n*** :1-64)

For example, to name Preset Number 2, type 'presetname_2=*name*'.

2.4.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

2.4.4 Example

1) http://10.1.0.1/api/wbpresetapi.cgi?cont 4=513&savesysvar
2) http://10.1.0.1/api/wbpresetapi.cgi?cont 4=513&presetname_1=Garage%20A&savesysvar

2.4.5 Note

1) This API defines the location where the IK-WB21A is currently facing as preset position.
2) If given such as 'http://10.1.0.1/api/wbpresetapi.cgi?cont_4=514&presetname_9=Garage%20A&savesysvar', current position is set to preset #2, and preset #9 is named 'Garage A'.

2.5 Easy Preset Deletion

wbpresetapi.cgi

2.5.1 Syntax

1) http://<*camip*>/api/wbpresetapi.cgi?cont 4=<*PresetID*>&savesysvar
2) http://<*camip*>/api/wbpresetapi.cgi?cont 4=<*PresetID*>&<*presetnameID*>=<*value*>&savesysvar

2.5.2 Input

Item	Entry name	Entry value	Std.val	Unit
Preset ID for deletion	cont_4	<*presetID*>	-	-
Preset name for deletion	<*presetnameID*>	any (max. 12 bytes)	-	-
Save this preset information	savesysvar	-	-	-

<presetID> is determined by the following method:
<presetID> = 768 + <PresetNumber>
For example, to delete Preset Number 1, the parameter would be 'cont_4=769
Next, indication of the <*presetnameID*> is shown.
presetname_***n*** where ***n*** is the Preset Number. (***n*** :1-64)
When deleting "Position Name" of Preset Number-2, the parameter of 'presetname_2=' has to be given.

2.5.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

2.5.4 Example

1) http://10.1.0.1/api/wbpresetapi.cgi?cont 4=769&savesysvar
2) http://10.1.0.1/api/wbpresetapi.cgi?cont 4=769&presetname_1=&savesysvar

2.5.5 Note

1) This API deletes assigned "Preset Number" and/or "Position Name" without giving caution.
2) If given such as 'http://10.1.0.1/api/wbpresetapi.cgi?cont_4=770&presetname_9=&savesysvar', the position of preset #2 will be deleted, and "Position Name" of preset #9 will be gone.

2.6 Easy collective Preset Name assignment

wbpresetapi.cgi

2.6.1 Syntax

1) http://<*camip*>/api/wbpresetapi.cgi?[presetname_1=<*value*>][&presetname_2=<*value*>][&...]&savesysvar

2.6.2 Input

Item	Entry name	Entry value	Std.val	Unit
Preset name of #1	presetname_1	any (max. 12 bytes)	-	-
…				
Preset name of #64	presetname_64	any (max. 12 bytes)	-	-
Save this preset information	savesysvar	-	-	-

2.6.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

2.6.4 Example

1) http://10.1.0.1/api/wbpresetapi.cgi?presetname_1=Neigbor#1&presetname_2=Garage&presetname_55=Wall&savesysvar
2) http://10.1.0.1/api/wbpresetapi.cgi?presetname_33=ParkingArea&savesysvar

2.6.5 Note

1) The position name can be specified at random.
2) The Position Name which is not specified by this API will remain unchanged.

2.7 Easy Preset Move

wbpresetapi.cgi

2.7.1 Syntax

1) http://<*camip*>/api/wbpresetapi.cgi?cont_4=<*presetID*>

2.7.2 Input

Item	Entry name	Entry value	Std.val	Unit
Preset Number where to go to	cont_4	<*presetID*>	-	-

<presetID> is determined by the following method:
<presetID> = 256 + <presetNumber>
For example, to go to Preset Number 1, the parameter would be 'cont_4=257'

2.7.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

2.7.4 Example

1) http://10.1.0.1/api/wbpresetapi.cgi?cont_4=257

2.7.5 Note

N/A

3. Network Settings

- wbsetnwkbasic.cgi - Basic Settings
- wbsetnwkbandwitdh.cgi - Bandwidth Control Settings
- wbsetnwkddns.cgi - DDNS Settings
- wbsetnwkftpserver.cgi - FTP Server Settings

wbset nwk func .cgi

(1) (2) (3) (4)

(1) Indicates a setting API.
(2) Indicates a network type setting API.
(3) Indicates the function matched to the WEB setting page.
(4) Every API is started and executed as cgi.

On and after the next page, the network setting API is shown.

3.1 Basic Settings

wbsetnwkbasic.cgi

3.1.1 Syntax

1) http:<*camip*>/api/wbsetnwkbasic.cgi?type=Default
2) http:<*camip*>/api/wbsetnwkbasic.cgi?type=Set[&CameraName=<*value*>][&DHCPMode=<*value*>][&…]

3.1.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
Reset to Default	type=Default	-	-	-	-
Camera name	type=Set	CameraName	any	nwcam21	-
DHCP		DHCPMode	1:OFF 2:ON	2	-
IP address		IPAddress	Dot-notation(n.n.n.n,0<=*n*<=255)		-
Subnet mask		SubnetMask	Dot-notation(n.n.n.n,0<=*n*<=255)		-
Default gateway		DefaultGateway	Dot-notation(n.n.n.n,0<=*n*<=255)		-
Primary DNS		PrimaryDNS	Dot-notation(n.n.n.n,0<=*n*<=255)		-
Secondary DNS		SecondaryDNS	Dot-notation(n.n.n.n,0<=*n*<=255)		-
Auto camera detection		CameraAutoDetection	1:OFF 2:ON	1	-
HTTP port number		HTTPPortNumber	80/1025-65535	80	-
Camera rebooting control of cgi common to all types		Reboot	No/Yes [default: No] (omissible)	-	-
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	-

3.1.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

3.1.4 Example

1) http://10.1.0.1/api/wbsetnwkbasic.cgi?type=Default
2) http://10.1.0.1/api/wbsetnwkbasic.cgi?type=Set&DHCPMode=2&Reboot=Yes

3.1.5 Notes

1) If only type=<*value*> is entered and then <*entry*>=<*value*> is not entered, no setting is performed. (type=Default is an exception.)

2) Multiple type=<*value*> cannot be enumerated simultaneously. This API must be started for each type.
3) When a blank character is included in <*value*>, it must be URL-encoded.
4) For only entered items, setting is performed. For the other items, their existing values are held.
5) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.
6) **To validate a setting by this API, the camera must be rebooted.**
7) When Reboot=Yes is entered and setting can be performed according to other entered value, the camera performs reboot processing as it is. Accordingly, the client may not receive “20 OK\r\n” being a normal termination status.
8) When Reboot=No is entered and the basic settings of the network are performed, reboot the camera by wbsetcamreboot.cgi or turn on/off the power supply of the camera after starting this API.
9) If only “Camera name” is set by this API and the other items are not changed at all, it is not necessary to reboot the camera as a camera reboot exception.

3.2 Bandwidth Control Settings

wbsetnwkbandwidth.cgi

3.2.1 Syntax

1) http://<*camip*>/api/wbsetnwkbandwidth.cgi?type=Default
2) http://<*camip*>/api/wbsetnwkbandwidth.cgi?type=Set[&Mode=<*value*>][&Numeric=<*value*>][&BandWidth=<*value*>]

3.2.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
Reset to Default	type=Default	-	-	-	-
Function	type=Set	Mode	1:OFF 2:ON	1	-
Band numeric		Numeric	any (0<*n*<=102400)	100	-
Band unit		BandWidth	1:Kbit/S 2:Mbit/S	2	-
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	-

3.2.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

3.2.4 Example

1) http://10.1.0.1/api/wbsetnwkbandwidth.cgi?type=Default
2) http://10.1.0.1/api/wbsetnwkbandwidth.cgi?type=Set&Mode=2&Numeric=256&BandWidth=1

3.2.5 Notes

1) If only type=<*value*> is entered and then <*entry*>=<*value*> is not entered, no setting is performed. (type=Default is an exception.)
2) Multiple type=<*value*> cannot be enumerated simultaneously. This API must be started for each type.
3) For only entered items, setting is performed. For the other items, their existing values are held.
4) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

3.3 DDNS Settings

wbsetnwkddns.cgi

3.3.1 Syntax

1) http://<*camip*>/api/wbsetnwkddns.cgi?type=Default
2) http://<*camip*>/api/wbsetnwkddns.cgi?type=Set[&Mode=<*value*>][&Server=<*value*>][&...]

3.3.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
Reset to Default	type=Default	-	-	-	-
DDNS mode	type=Set	Mode	1:OFF 2:ON	1	-
DDNS server		Server	any (max.128 bytes)		-
User ID		UserID	any (max.32 bytes)		-
Password		Password	any (max.32 bytes)		-
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	-

3.3.3 Output

Code	Status
32	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

3.3.4 Example

1) http://10.1.0.1/api/wbsetnwkddns.cgi?type=Default
2) http://10.1.0.1/api/wbsetnwkddns.cgi?type=Set&Mode=2&UserID=<*base64enc*>&Password=<*base64enc*>

3.3.5 Notes

1) If only type=<*value*> is entered and then <*entry*>=<*value*> is not entered, no setting is performed. (type=Default is an exception.)
2) Multiple type=<*value*> cannot be enumerated simultaneously. This API must be started for each type.
3) When LoginID/Password is specified, these must be base64-encoded.
4) When a blank character is included in <*value*>, it must be URL-encoded.
5) For only entered items, setting is performed. For the other items, their existing values are held.
6) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

3.4 FTP Server Settings

wbsetnwkftpserver.cgi

3.4.1 Syntax

1) http://<*camip*>/api/wbsetnwkftpserver.cgi?type=Default
2) http://<*camip*>/api/wbsetnwkftpserver.cgi?type=Set[&Mode=<*value*>][&LoginID=<*value*>][&...]

3.4.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
Reset to Default	type=Default	-	-	-	-
FTP function	type=Set	Mode	1:OFF 2:ON	1	-
Login name		LoginID	any (max.32 bytes)	root	-
Password		Password	any (max.32 bytes)	ikwb	-
Max simultaneous connections		MaxConnection	1-10	1	-
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	-

3.4.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

3.4.4 Example

1) http://10.1.0.1/api/wbsetnwkftpserver.cgi?type=Default
2) http://10.1.0.1/api/wbsetnwkftpserver.cgi?type=Set&Mode=2&LoginID=<*base64enc*>&Password=<*base64enc*>&MaxConnection=5

3.4.5 Notes

1) If only type=<*value*> is entered and then <*entry*>=<*value*> is not entered, no setting is performed. (type=Default is an exception.)
2) Multiple type=<*value*> cannot be enumerated simultaneously. This API must be started for each type.
3) When LoginID/Password is specified at type=Server-1/2, these must be base64-encoded.
4) When a blank character is included in <*value*>, it must be URL-encoded.
5) For only entered item, setting is performed. For the other items, their existing values are held.
6) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

4. Multi-Screen Display Settings

- wbsetmultiscreen.cgi - Multi-Screen Display Settings

wbset multi func .cgi

(1) (2) (3) (4)

(1) Indicates a setting API.
(2) Indicates a multi-screen display type setting API.
(3) Indicates the function matched to the WEB setting page.
(4) Every API is started and executed as cgi.

On and after the next page, the network setting API is shown.

4.1 Multi-Screen Display Settings

wbsetmultiscreen.cgi

4.1.1 Syntax

1) http://<camip>/api/wbsetmultiscreen.cgi?type=Default
2) http://<camip>/api/wbsetmultiscreen.cgi?type=DisplayMode[&Mode=<*value*>]
3) http://<camip>/api/wbsetmultiscreen.cgi?type=Camera-1[&Name=<*value*>][&Addr=<*value*>][&…]
   ……
4) http://<camip>/api/wbsetmultiscreen.cgi?type=Camera-30[&Name=<*value*>][&Addr=<*value*>][&…]

4.1.2 Input

Item		Type	Entry name	Entry value	Std.val	Unit
Reset to Default		type=Default	-	-	-	-
Multi-Screen display mode		type=DisplayMode	Mode	1:OFF 2:ON	1	-
Set enable my camera on multi-screen		type=MyCameraInfo	Selection	1:OFF 2:Checked	2	-
Added camera -1	Name	Camera-1	Name	any (max.64 bytes)		-
	Access		Addr	any (max.128 bytes)		-
	HTTP port number		HTTPPortNumber	80/1025-65535	80	-
	Type		Kind	Should be ignored	-	-
	Enable on multi-screen		Selection	1:OFF 2:Checked	1	-
……						
Added camera -30	Name	Camera-30	Name	any (max.64 bytes)		-
	Access		Addr	any (max.128 bytes)		-
	HTTP port number		HTTPPortNumber	80/1025-65535	80	-
	Type		Kind	Should be ignored	-	-
	Enable on multi-screen		Selection	1:OFF 2:Checked	1	-
Log output control of cgi common to all types			OpeLog	No/Yes [default: Yes] (omissible)	-	-

4.1.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

4.1.4 Example

1) http://10.1.0.1/api/wbsetmultiscreen.cgi?type=Default
2) http://10.1.0.1/api/wbsetmultiscreen.cgi?type=DisplayMode&Mode=2
3) http://10.1.0.1/api/wbsetmultiscreen.cgi?type=Camera-23&Name=HarryGayer

4.1.5 Note

1) If only type=<*value*> is entered and then <*entry*>=<*value*> is not entered, no setting is performed. (type=Default is an exception.)
2) Multiple type=<*value*> cannot be enumerated simultaneously. This API must be started for each type.
3) For only entered items, setting is performed. For the other items, their existing values are held.
4) When a blank character is included in <*value*>, it must be URL-encoded.
5) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

5. Administrator Functions

- wbsetadminuserinfo.cgi - Uer Login Restriction
- wbsetadminuserfunctions.cgi - User Operation Restriction Control
- wbsetadminTaD.cgi - NTP Settings
- wbsetadmintime.cgi - Set Time Manually
- wbsetadminsetdefault.cgi - Reset All Camera Informations to Default
- wbsetadmincamreboot.cgi - Reboot Camera

wbset admin func .cgi

(1) (2) (3) (4)

(1) Indicates a setting API.
(2) Indicates an administrator's API.
(3) Indicates the function matched to the WEB setting page.
(4) Every API is started and executed as cgi.

On and after the next page, the network setting API is shown.

5.1 User Login Restriction

wbsetadminuserinfo.cgi

5.1.1 Syntax

1) http://<*camip*>/api/wbsetadminuserinfo.cgi?type=Default[&Reboot=<*value*>]
2) http://<*camip*>/api/wbsetadminuserinfo.cgi?type=Set[&LoginRestriction=<*value*>]

5.1.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
Reset to Default	type=Default	-	-	-	-
Login restriction	type=Set	LoginRestriction	1:OFF 2:ON	2	-
Camera rebooting control of cgi common to all types		Reboot	No/Yes [default: No] (omissible)	-	-
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	-

5.1.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

5.1.4 Example

1) http://10.1.0.1/api/wbsetadminuserinfo.cgi?type=Default&Reboot=Yes
2) http://10.1.0.1/api/wbsetadminuserinfo.cgi?type=Set&LoginRestriction=2&Reboot=Yes

5.1.5 Notes

1) If only type=<*value*> is entered and then <*entry*>=<*value*> is not entered, no setting is performed. (type=Default is an exception.)
2) Multiple type=<*value*> cannot be enumerated simultaneously. This API must be started for each type.
3) For only entered items, setting is performed. For the other items, their existing values are held.
4) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.
5) **To validate a setting by this API, the camera must be rebooted.**
6) When Reboot=Yes is entered and setting can be performed according to other entered value, the camera performs reboot processing as it is. Accordingly, the client may not receive “20 OK\r\n” being a normal termination status.
7) When Reboot=No is entered, reboot the camera by wbsetcamreboot.cgi or turn on/off the power supply of the camera after starting this API.

5.2 User Operation Restriction Control

wbsetadminuserfunctions.cgi

5.2.1 Syntax

1) http://<*camip*>/api/wbsetadminuserfunctions.cgi?type=Default
2) http://<*camip*>/api/wbsetadminuserfunctions.cgi?type=FunctionRestriction[&Mode=<*value*>]
3) http://<*camip*>/api/wbsetadminuserfunctions.cgi?type=Function[&Resolution=<*value*>][&CompressionRatio=<*value*>][&...]

5.2.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
Reset to Default	type=Default	-	-	-	-
User Operation Restriction	type=FunctionRestriction	Mode	1:OFF 2:ON	1	-
Resolution change	type=Function	Resolution	1:disable 2:enable	1	-
Compression ratio change		CompressionRatio	1:disable 2:enable	1	-
Brightness adjustment change		AEControl	1:disable 2:enable	1	-
Mounting method change		Mounting	1:disable 2:enable	1	-
Focus range change		FocusRange	1:disable 2:enable	1	-
AF Detection Area		AFDetectionArea	1:disable 2:enable	1	-
Auto B/W change		AutoBW	1:disable 2:enable	1	-
White Balance(WB) change		WhiteBalance	1:disable 2:enable	1	-
WB manual GAIN change		WBManualGain	1:disable 2:enable	1	-
AWB offset change		AWBOffset	1:disable 2:enable	1	-
AWB range change		AWBRange	1:disable 2:enable	1	-
Auto gain control change		AutoGainControl	1:disable 2:enable	1	-
Slow shutter change		SlowShutterMax	1:disable 2:enable	1	-
Backlight compensation change		BackLightCompensation	1:disable 2:enable	1	-
Sharpness change		Sharpness	1:disable 2:enable	1	-
Color difference GAIN change		Gain	1:disable 2:enable	1	
Noise reduction change		NoiseReduction	1:disable 2:enable	1	
Zoom operation		Zoom	1:disable 2:enable	1	

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Item	Type	Entry name	Entry value	Std.val	Unit
Focus operation	(type=Function)	Focus	1:disable 2:enable	1	
Iris operation		Iris	1:disable 2:enable	1	
Audio -receive from camera- operation		Audio	1:disable 2:enable	1	
Image save operation		PictureSaving	1:disable 2:enable	1	
PAN/TILT operation		PanTilt	1:disable 2:enable	1	
Auto patrol operation		AutoPatrol	1:disable 2:enable	1	
Scanning operation		Scan	1:disable 2:enable	1	
Preset operation		Preset	1:disable 2:enable	1	
Alarm replay operation		PlayAlarm	1:disable 2:enable	1	
Normal replay operation		PlayNormal	1:disable 2:enable	1	
Ext Control In replay operation		PlayControl	1:disable 2:enable	1	
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	-

5.2.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

5.2.4 Example

1) http://10.1.0.1/api/wbsetadminuserfunctions.cgi?type=Default
2) http://10.1.0.1/api/wbsetadminuserfunctions.cgi?type=FunctionRestiction?Mode=2
3) http://10.1.0.1/api/wbsetadminuserfunctions.cgi?type=Function&Resolution=3&CompressionRatio=5&AEControl=-19

5.2.5 Notes

1) If only type=<*value*> is entered and then <*entry*>=<*value*> is not entered, no setting is performed. (type=Default is an exception.)
2) Multiple type=<*value*> cannot be enumerated simultaneously. This API must be started for each type.
3) For only entered items, setting is performed. For the other items, their existing values are held.
4) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

5.3 NTP Settings

wbsetadminTaD.cgi

5.3.1 Syntax

1) http://<*camip*>/api/wbsetadminTaD.cgi?type=Default
2) http://<*camip*>/api/wbsetadminTaD.cgi?type=TimeZone[&Location=<*value*>]
3) http://<*camip*>/api/wbsetadminTaD.cgi?type=NTP[&Mode=<*value*>][&Server=<*value*>][&AdjustingCycle=<*value*>]
4) http://<*camip*>/api/wbsetadminTaD.cgi?type=DaylightSaving[&Mode=<*value*>]

5.3.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
Reset to Default	type=Default	-	-	-	-
Time zone	type=TimeZone	Location	-12 - +12	-7	hour
Using NTP	type=NTP	Mode	1:OFF 2:ON	1	-
NTP Server name		Server	any (max.64 bytes)		-
Adjusting Cycle		AdjustingCycle	1:On camera boot and 24-hour priod 2:On camera boot and 12-hour priod 3:On camera boot and 6-hour priod 4:On camera boot and 1-hour priod	1	-
Daylight Saving	type=DaylightSaving	Mode	1:OFF 2:ON	1	-
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	-

5.3.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

5.3.4 Example

1) http://10.1.0.1/api/wbsetadminTaD.cgi?type=Default
2) http://10.1.0.1/api/wbsetadminTaD.cgi?type=TimeZone&Location=-8
3) http://10.1.0.1/api/wbsetadminTaD.cgi?type=NTP&Mode=2&Server=ntp.hoge.com&AdjustingCycle=2
4) http://10.1.0.1/api/wbsetadminTaD.cgi?type=DaylightSaving&Mode=2

5.3.5 Notes

1) If only type=NTP is entered and then <*entry*>=<*value*> is not entered, no setting is performed.
2) Multiple type=<*value*> cannot be enumerated simultaneously. This API must be started for each type.
3) For only entered items, setting is performed. For the other items, their existing values are held.
4) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

5.4 Set Time Manually

wbsetadmintime.cgi

5.4.1 Syntax

1) http://<*camip*>/api/wbsetadmintime.cgi?type=Set&Year=<*value*>&Month=<*value*>&Day=<*value*>&Hour=<*value*>&Minute=<*value*>&Second=<*value*>

5.4.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
Year	type=Set	Year	5 - 29	-	year
Month		Month	1 - 12		month
Day		Day	1 - 31	-	day
Hour		Hour	0 - 23	-	hour
Minute		Minute	0 - 59	-	minute
Second		Second	0 - 59	-	second
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	-

5.4.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

5.4.4 Example

1) http://10.1.0.1/api/wbsetadmintime.cgi?type=Set&Year=5&Month=9&Day=10&Hour=1&Minute=16&Second=17

5.4.5 Notes

1) All <*entry*>=<*value*> are recommended.
2) Multiple type=<*value*> cannot be enumerated simultaneously. This API must be started for each type.
3) API 'wbgetadmintime.cgi' can get current time and date of camera.
4) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

5.5 Reset All Camera Informations to Default

wbsetadminsetdefault.cgi

5.5.1 Syntax

1) http://<*camip*>/api/wbsetadminsetdefault.cgi?type=Default

5.5.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
Reset to Default	type=Default	-	-	-	-
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	-

5.5.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

5.5.4 Example

1) http://10.1.0.1/api/wbsetadminsetdefault.cgi?type=Default

5.5.5 Notes

1) Reset all the camera information to the factory-set status provided at delivery from the factory.
2) Because the network information is changed, the client may not receive the normal termination status “20 OK\r\n” at completion of this API execution.
3) If any error is found in an input parameter to the API, the camera information is not reset to the factory-set status provided at delivery from the factory. Accordingly, the client can receive all the status described in the output.
4) **It may take about 30 seconds to complete the operation.**
5) After completion of the operation, the camera is not rebooted automatically. The power supply of the camera must be turned on/off or the camera must be separately rebooted by wbsetadmincamreboot. cgi.
6) Inside the camera, the information is reset to the factory-set status provided at delivery step by step. For details, refer to ***Appendix.C***.

5.6 Reboot Camera

wbsetadmincamreboot.cgi

5.6.1 Syntax

1) http://<*camip*>/api/wbsetadmincamreboot.cgi?type=Reboot

5.6.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
Reboot Camera	type=Reboot	-	-	-	-
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	-

5.6.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

5.6.4 Example

1) http://10.1.0.1/api/wbsetadmincamreboot.cgi?type=Reboot

5.6.5 Notes

1) Reboot the camera.
2) The client may not receive the normal termination status “20 OK\r\n” at completion of this API execution.
3) If an error is found in an input parameter to the API, the camera is not rebooted. Accordingly, the client can receive all the status described in the output.

6. Log Management

- wbsetlogconditions.cgi - Filter Settings
- wbsetlogclear.cgi - Clear Logs

wbset log func .cgi

(1) (2) (3) (4)

(1) Indicates a setting API.
(2) Indicates a log management API.
(3) Indicates the function matched to the WEB setting page.
(4) Every API is started and executed as cgi.

On and after the next page, the network setting API is shown.

6.1 Filter Settings

wbsetlogconditions.cgi

6.1.1 Syntax

1) http://<*camip*>/api/wbsetlogconditions.cgi?type=Default
2) http://<*camip*>/api/wbsetlogconditions.cgi?type=Set[&Display=<*value*>][&Filter=<*value*>][&...]

6.1.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
Reset to Default	type=Default	-	-	-	-
Display mode	type=Set	Display	1:Display all 2:Set conditions	1	-
Display condition settings		Filter	1:Number of logs 2:Keyword 3:Indicate time and date	1	-
Display Most recent/Old		Which	1:Most recent 2:Old	1	-
n logs		NumberOf	1-9999	16	-
Keyword		Keyword	any (max.128 bytes)		-
Year		Year	[20]00-[20]99	5	year
Month		Month	1-12	1	month
Day		Day	1-31	1	day
Hour		Hour	0-23	0	hour
Minute		Minute	0-59	0	minute
Second		Second	0-59	0	second
Display After/Before logs		BcAd	1:Before 2:After	2	-
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	-

6.1.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
92	CriticalError

6.1.4 Example

1) http://10.1.0.1/api/wbsetlogconditions.cgi?type=Default
2) http://10.1.0.1/api/wbsetlogconditions.cgi?type=Set&Display=1

6.1.5 Notes

1) If only type=<*value*> is entered and then <*entry*>=<*value*> is not entered, no setting is performed. (type=Default is an exception.)
2) For only entered items, setting is performed. For the other items, their existing values are held.
3) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

6.2 Clear Logs

wbsetlogclear.cgi

6.2.1 Syntax

1) http://<*camip*>/api/wbsetlogclear.cgi&type=Set

6.2.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
Clear logs	type=Set	-	-	-	-
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)	-	-

6.2.3 Output

Code	Status
20	OK
30	InvalidType
31	InvalidEntry

Code	Status
32	InvalidValue
33	InvalidOperand
34	NoEntryData

Code	Status
40	FailToSave
92	CriticalError

6.2.4 Example

1) http://10.1.0.1/api/wbsetlogclear.cgi&type=Set

6.2.5 Notes

1) After this API is started, the log is deleted immediately without confirming the intention.
2) Accordingly, **take extreme care to handle this API.**
3) When saving results in a failure, the message FailToSave is output. This status does not match with the purpose of the function. Please disregard this message.
4) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

VII. IK-WB21A Picture/Audio type API List

Item No.	Item	Menu	API name	Notes
7	Live Pictures	Get Stream	getstream.cgi	The getstream type APIs are common interface and functions are distinguished with parameters.
		Get One-shot	__live.jpg	
	Playback Pictures	Get Stream	getstream.cgi	
	Live Audio	Get Stream	getstream.cgi	
	Abort	Abort Stream	getstream.cgi	

7. Get Pictures/Audio

- getstream.cgi - Get Live Pictures by streaming
- __live.jpg - One-shot Live Picture
- __live.wav - One-shot Live Audio
- getstream.cgi - Get Playback Pictures by streaming
- getstream.cgi - Get Live Audio by streaming
- getstream.cgi - Abort Streaming (abort5)
- getstream.cgi - Abort Streaming (abort10)

On and after the next page, the network setting API is shown.

7.1 Get Live Pictures by streaming

getstream.cgi

7.1.1 Syntax

1) http://<*camip*>/api/getstream.cgi?<*clientID*>&<*uniqueID*>&<*ID*>&<*PW*>&<*streamType*>&<*interval*>&<*mode*>&<*value*>&<*timeOut*>

7.1.2 Input

Paramter	Value	Explanation
<clientID>	Enter a unique ID of up to 15 digits.	This <*clientID*> is used as an index to forcedly terminate (abort) the streaming execution task from the outside. **It cannot be omitted.**
<uniqueID>	Enter a unique ID of up to 15 digits.	Embed the current time data of the client on each occasion. Originally, this is used as a cache reading preventive means in using the browser by continuously changing the value. If there is not any problem similar to the browser in an application, this parameter can be left blank.
<ID>	Enter the user ID that is base64-encoded or the administrator ID.	Originally, <ID> can be left blank only when the user limitation setting is "Invalid (OFF)" at obtaining the image data of a LIVE image (_live.jpg). In the IK-WB21A, it can be left blank as a parameter.
<PW>	Enter the user ID that is base64-encoded or the administrator ID.	Originally, <PW> can be left blank only when the user limitation setting is "Invalid (OFF)" at obtaining a LIVE image. In the IK-WB21A, it can be left blank as a parameter.
<streamType>	Specify "0" for the type of the LIVE image to be obtained.	_live.jpg : 0
<interval>	Set the image distribution interval in ms.	This value cannot exceed camera's capability. If the specified distribution interval exceeds the capability on the camera side, the camera performs image distribution with its maximum capability at that time.
<mode>	Specify a fixed number of images or a fixed period as the LIVE image obtaining method.	Fixed number of images : 0 Fixed period : 1
<value>	Set the numeric value for the mode specified in <*mode*>.	When <*mode*> is 0, set the number of images in <*value*>. When <*mode*> is 1, set the time interval in <*value*>.
<timeout>	Set the execution timeout value in ms.	Set the execution timeout value in ms for the case where a non-communication status is continued over a certain period with the client while <*image-field*> is output.

7.1.3 Output

For details, refer to ***Appendix.A***.

7.1.4 Example

1) http://10.1.0.1/api/getstream.cgi?3087&3087&&&0&1000&1&0&9000

7.1.5 Notes

1) The client ID is an ID of up to 15 digits that is generated on the client side to execute getstream. If this ID is already in use, the camera informs the client of an error to cancel the image distribution.
2) The 4 interfaces of ‘Live Picture stream’, ‘Playback Picture stream’, ‘Live Audio stream’ and ‘Abort stream’ are common APIs. However, the meaning of each parameter varies depending on the target to be executed.
3) It is desirable that the stream should be stopped by abort5 or abort10. This will reduce the network load of the IK-WB21.

7.2 One-shot Live Picture

__live.jpg

7.2.1 Syntax

1) http://<*camip*>/admin/__live.jpg

7.2.2 Input

N/A

7.2.3 Output

1) Only a single JPEG image is downloaded.

7.2.4 Example

1) http://10.1.0.1/admin/__live.jpg

7.2.5 Notes

1) This API can obtain only a single image. To obtain multiple images, start this API in succession.
2) Note that the directory of this API is different from those of the other APIs.

7.3 Get Playback Pictures by streaming

getstream.cgi

7.3.1 Syntax

1) http://<*camip*>/api/getstream.cgi?<*clientID*>&<*uniqueID*>&<*ID*>&<*PW*>&<*streamType*>&<*interval*>&<*mode*>&<*value*>&<*timeOut*>

7.3.2 Input

Paramter	Value	Explanation
<clientID>	Enter a unique ID of up to 15 digits.	This <*clientID*> is used as an index to forcedly terminate (abort) the streaming execution task from the outside. **It cannot be omitted.**
<uniqueID>	Enter a unique ID of up to 15 digits.	Embed the current time data of the client on each occasion. Originally, this is used as a cache reading preventive means in using the browser by continuously changing the value. If there is not any problem similar to the browser in an application, this parameter can be left blank.
<ID>	Enter the administrator ID that is base64-encoded.	Originally, it is necessary to enter the administrator ID when obtaining the image data of a LIVE image (_play.jpg). In the IK-WB21A, however, it is can be left blank as a parameter.
<PW>	Enter the administrator ID that is base64-encoded.	Originally, it is necessary to enter the administrator ID when obtaining the image data of a LIVE image (_play.jpg). In the IK-WB21A, however, it can be left blank as a parameter.
<streamType>	Specify “2” for the type of the LIVE image to be obtained.	Always specify “2”.
<interval>	“0”	When <*streamType*> is “2”, this parameter may have any value. However, enter “0”.
<mode>	“0”	When <*streamType*> is “2”, this parameter may have any value. However, enter “0”.
<value>	“0”	When <*streamType*> is “2”, this parameter may have any value. However, enter “0”.
<timeout>	Set the execution timeout value in ms.	Set the execution timeout value in ms for the case where a non-communication status is continued over a certain period with the client while <*image-field*> is output.
<type>	Enter the type of reproduced image to be obtained.	Alarm In record image : 1 Motion record image : 2 Normal record image : 3 Ext. Control In record image : 4
<listNumber>	Enter the list number to be reproduced.	List number.

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From the last page.

Paramter	Value	Explanation
<position>	Enter the order of the first image to be reproduced from the starting position (beginning position) of record images.	Numeric value to indicate the number of images.
<direction>	Enter the direction of reproduction.	Normal direction : 0 Reverse direction : 1
<step>	Enter the number of images to be skipped (number of skipped images).	Usually, specify “1”.
<number>	Enter the total number of images to be reproduced.	When “0” is specified, reproduction is performed to the last image. When any value other than “0” is specified, enter the number of images that the client requires.

7.3.3 Output

The format is the same as that for getting Live Pictures by streaming. For details, refer to ***Appendix.A***.

7.3.4 Example

1) http://10.1.0.1/api/getstream.cgi?3087&3087&&&2&0&0&0&9000

7.3.5 Notes

1) The client ID is an ID of up to 15 digits that is generated on the client side to execute getstream. If this ID is already in use, the camera informs the client of an error to cancel the image distribution.
2) The 4 interfaces of ‘Live Picture stream’, ‘Playback Picture stream’, ‘Live Audio stream’ and ‘Abort stream’ are common APIs. However, the meaning of each parameter varies depending on the target to be executed.
3) It is desirable that the stream should be stopped by abort5 or abort10. This will reduce the network load of the IK-WB21A.
4) Only regarding the interface of getstream type API to obtain reproduced images as a stream, parameters are extended for other getstream types.

7.4 Get Live Audio by streaming

getstream.cgi

7.4.1 Syntax

1) http://<*camip*>/api/getstream.cgi?<*clientID*>&<*uniqueID*>&<*ID*>&<*PW*>&<*streamType*>&<*interval*>&<*mode*>&<*value*>&<*timeOut*>

7.4.2 Input

Paramter	Value	Explanation
<clientID>	Enter a unique ID of up to 15 digits.	This <*clientID*> is used as an index to forcedly terminate (abort) the streaming execution task from the outside. **It cannot be omitted.**
<uniqueID>	Enter a unique ID of up to 15 digits.	Embed the current time data of the client on each occasion. Originally, this is used as a cache reading preventive means in using the browser by continuously changing the value. If there is not any problem similar to the browser in an application, this parameter can be left blank.
<ID>	Enter the user ID that is base64-encoded or the administrator ID.	Originally, <ID> is omissible only when the user limitation setting is “Invalid (OFF)” at obtaining the image data of a LIVE image (_live.wav). In the IK-WB21A, it can be left blank as a parameter.
<PW>	Enter the user ID that is base64-encoded or the administrator ID.	Originally, <PW> is omissible only when the user limitation setting is “Invalid (OFF)” at obtaining a LIVE image. In the IK-WB21A, it can be left blank as a parameter.
<streamType>	Specify “1” for the type of the LIVE audio to be obtained.	_live.wav : 1
<interval>	“0”	When <*streamType*> is “1”, this parameter may have any value. However, enter “0”.
<mode>	Specify a fixed number of files or a fixed period as the LIVE audio obtaining method.	Fixed number of files : 0 Fixed period : 1
<value>	Set the numeric value for the mode specified in <*mode*>.	When <*mode*> is 0, set the number of files in <*value*>. When <*mode*> is 1, set the time interval in <*value*>.
<timeout>	Set the execution timeout value in ms.	Set the execution timeout value in ms for the case where a non-communication status is continued over a certain period with the client while <*image-field*> is output.

7.4.3 Output

The format is the same as that for getting Live Pictures by streaming. For details, refer to ***Appendix.A***.

7.4.4 Example

1) http://10.1.0.1/api/getstream.cgi?3087&3087&&&1&1000&1&0&9000

7.4.5 Notes

1) The client ID is an ID of up to 15 digits that is generated on the client side to execute getstream. If this ID is already in use, the camera informs the client of an error to cancel the image distribution.
2) The 4 interfaces of ‘Live Picture stream’, ‘Playback Picture stream’, ‘Live Audio stream’ and ‘Abort stream’ are common APIs. However, the meaning of each parameter varies depending on the target to be executed.
3) It is desirable that the stream should be stopped by abort5 or abort10. This will reduce the network load of the IK-WB21A.

7.5 One-shot Live Audio

__live.wav

7.5.1 Syntax

1) http://<*camip*>/admin/__live.wav

7.5.2 Input

N/A

7.5.3 Output

Only one frame of audio data for 1 second is downloaded in WAV format.

7.5.4 Example

1) http://10.1.0.1/api/__live.wav

7.5.5 Notes

1) The audio data that can be obtained by this API is a WAV file of one-second unit. To obtain multiple audio data, start this API in succession.
2) Note that the directory of this API is different from those of the other APIs.

7.6 Abort stream (abort5)

getstream.cgi

7.6.1 Syntax

1) http://<*camip*>/api/getstream.cgi?<*clientID*>&<*uniqueID*>&<*ID*>&<*PW*>&<*streamType*>&<*interval*>&<*mode*>&<*value*>&<*timeOut*>

7.6.2 Input

Paramter	Value	Explanation
<clientID>	Enter a unique ID of up to 15 digits.	This <*clientID*> is used as an index to forcedly terminate (abort5) the streaming execution task from the outside. **It cannot be omitted.**
<uniqueID>	Enter a unique ID of up to 15 digits.	Embed the current time data of the client on each occasion. Originally, this is used as a cache reading preventive means in using the browser by continuously changing the value. If there is not any problem similar to the browser in an application, this parameter can be left blank.
<ID>	Enter the user ID that is base64-encoded or the administrator ID.	Originally, the ID used for executing the streaming is required. In the IK-WB21A, it can be left blank.
<PW>	Enter the user ID that is base64-encoded or the administrator ID.	Originally, the PW used for executing the streaming is required. In the IK-WB21A, it can be left blank.
<streamType>	Specify “5” for the type of abort5.	Termination of external abort: 5
<interval>	“0”	When <*streamType*> is “5”, this parameter may have any value. However, enter “0”.
<mode>	“0”	When <*streamType*> is “5”, this parameter may have any value. However, enter “0”.
<value>	“0”	When <*streamType*> is “5”, this parameter may have any value. However, enter “0”.
<timeout>	Set the execution timeout value in ms.	Set the execution timeout value in ms for the case where a non-communication status is continued over a certain period with the client while <*image-field*> is output.

7.6.3 Output

The format is the same as that for getting Live Pictures by streaming. For details, refer to ***Appendix.A***.

7.6.4 Example

1) http://10.1.0.1/api/getstream.cgi?3087&3087&Z3Vlc3Q=&Z3Vlc3Q=&5&0&0&0&9000

7.6.5 Notes

1) The client ID should be one that is distributing the stream. If a non-existent ID is specified, abort processing is not performed.
2) The 4 interfaces of ‘Live Picture stream’, ‘Playback Picture stream’, ‘Live Audio stream’ and ‘Abort stream’ are common APIs. However, the meaning of each parameter varies depending on the target to be executed.
3) It is desirable that the stream should be stopped by abort5 or abort10. This will reduce the network load of the IK-WB21A.

7.7 Abort stream (abort10)

getstream.cgi

7.7.1 Syntax

1) http://<*camip*>/api/getstream.cgi?<*clientID*>&<*uniqueID*>&<*ID*>&<*PW*>&<*streamType*>&<*interval*>&<*mode*>&<*value*>&<*timeOut*>

7.7.2 Input

Paramter	Value	Explanation
<clientID>	Enter a unique ID of up to 15 digits.	This <*clientID*> is used as an index to forcedly terminate (abort10) the streaming execution task from the outside. **It cannot be omitted.**
<uniqueID>	Enter a unique ID of up to 15 digits.	Embed the current time data of the client on each occasion. Originally, this is used as a cache reading preventive means in using the browser by continuously changing the value. If there is not any problem similar to the browser in an application, this parameter can be left blank.
<ID>	Enter the administrator ID that is base64-encoded.	Originally, it is mandatory to enter the administrator ID. In the IK-WB21A, it can be left blank.
<PW>	Enter the administrator PW that is base64-encoded.	Originally, it is mandatory to enter the administrator PW. In the IK-WB21A, it can be left blank.
<streamType>	Specify “10” for the type of abort10.	Termination of external abort: 10
<interval>	“0”	When <*streamType*> is “10”, this parameter may have any value. However, enter “0”.
<mode>	“0”	When <*streamType*> is “10”, this parameter may have any value. However, enter “0”.
<value>	“0”	When <*streamType*> is “10”, this parameter may have any value. However, enter “0”.
<timeout>	Set the execution timeout value in ms.	Set the execution timeout value in ms for the case where a non-communication status is continued over a certain period with the client while <*image-field*> is output.

7.7.3 Output

The format is the same as that for getting Live Pictures by streaming. For details, refer to ***Appendix.A***.

7.7.4 Example

1) http://10.1.0.1/api/getstream.cgi?3087&3087&cm9vdA==&aWt3Yg==&10&0&0&0&9000

7.7.5 Notes

1) abort10 stops all the streams that are currently distributed.
2) The 4 interfaces of ‘Live Picture stream’, ‘Playback Picture stream’, ‘Live Audio stream’ and ‘Abort stream’ are common APIs. However, the meaning of each parameter varies depending on the target to be executed.
3) It is desirable that the stream should be stopped by abort5 or abort10. This will reduce the network load of the IK-WB21A.

VIII. IK-WB21 Data Reference Type API List

Item No.	Item	Sub-number	Menu	API name	Function type
8	Reference of all setting Information	8-1	-	wbgetallinfo.cgi	-
9	Reference of Camera Settings	9-1	Basic	wbgetcambasic.cgi	-
		9-2	Frame Rate	wbgetcamframerate.cgi	-
		9-3	Alarm	wbgetcamalarm.cgi	-
		9-4	Recording	wbgetcamrecord.cgi	-
		9-5	FTP Recording	wbgetcamftprecord.cgi	-
		9-6	E-mail	wbgetcammail.cgi	-
		9-7	Audio	wbgetcamsound.cgi	
10	Reference of PAN/TILT Settings	10-1	Basic/Operation Range	wbgetptbasic.cgi	-
		10-2	Preset	wbgetptpreset.cgi	-
		10-3	Auto Patrol	wbgetptautopatrol.cgi	-
11	Reference of Network Settings	11-1	Basic	wbgetnwkbasic.cgi	-
		11-2	Bandwidth Control	wbgetnwkbandwidth.cgi	-
		11-3	DDNS	wbgetnwkddns.cgi	
		11-4	FTP Server	wbgetnwkftpserver.cgi	-
		11-5	MAC Address	wbgetnwkmac.cgi	-
12	Reference of Multi-Screen	12-1	Multi-Screen	wbgetmultiscreen.cgi	-
13	Reference of Administrator Functions	13-1	User Login Restriction	wbgetadminuserinfocgi	-
		13-2	User Operation Restriction	wbgetadminserfunctions.cgi	-
		13-3	Date and Time Settings	wbgetadminTaD.cgi	-
		13-4	Get Current Camera Time	wbgetadmintime.cgi	-
14	Reference of Log Management Settings	14-1	Log Filtering Conditions	wbgetlogconditions.cgi	-
		14-2	Log Lists	wbgetloglist.cgi	-

8. Reference of All Setting Information

- wbgetallinfo.cgi - Reference of all setting information

wbget allinfo .cgi

(1) (2) (3)

(1) Indicates a reference type API.
(2) Indicates all configuration reference API.
(3) Every API is started and executed as cgi.

On and after the next page, the camera setting API is shown.

8.1 Reference of All Setting Information

wbgetallinfo.cgi

8.1.1 Syntax

1) http://<*camip*>/api/wbgetallinfo.cgi

8.1.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

8.1.3 Output

For details, refer to ***Appendix.B***.

8.1.4 Example

1) http://10.1.0.1/api/wbgetallinfo.cgi

8.1.5 Notes

1) The same result as that obtained by using the export function of the WEB setting screen can be obtained by the output of this API.
2) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

9. Reference of Camera Setting

- wbgetcambasic.cgi - Reference of Camera Basic Settings
- wbgetcamframerate.cgi - Reference of Frame Rate Settings
- wbgetcamalarm.cgi - Reference of Alarm Settings
- wbgetcamrecord.cgi - Reference of Recording Settings
- wbgetcamfrprecord.cgi - Reference of FTP Recording Settings
- wbgetcammail.cgi - Reference of E-mail Settings
- wbgetcamsound.cgi - Reference of Audio Settings

wbget cam func .cgi

(1) (2) (3) (4)

(1) Indicates a reference API.
(2) Indicates a camera type reference API.
(3) Indicates the function matched to the WEB setting page.
(4) Every API is started and executed as cgi.

On and after the next page, the camera reference API is shown.

9.1 Reference of Camera Basic Settings

wbgetcambasic.cgi

9.1.1 Syntax

1) http://<*camip*>/api/wbgetcambasic.cgi

9.1.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

9.1.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetcambasic.cgi indicates the notification data format to the client when data has been obtained normally.

20 OK\r\n
\r\n
[Camera-General]\r\n
Resolution (*value*)\r\n
CompressionRatio (*value*)\r\n
AEControl (*value*)\r\n
Mounting (*value*)\r\n
FocusRange (*value*)\r\n
AFDetectionArea (*value*)\r\n
AutoBW (*value*)\r\n
WhiteBalance (*value*)\r\n
WBManualGainR (*value*)\r\n
WBManualGainB (*value*)\r\n
AWBOffsetYeCy (*value*)\r\n
AWBOffsetMgG (*value*)\r\n
AWBRange (*value*)\r\n
AutoGainControl (*value*)\r\n
SlowShutterMAX (*value*)\r\n
BackLightCompensation (*value*)\r\n
Sharpness (*value*)\r\n
GainRY (*value*)\r\n
GainBY (*value*)\r\n
NoiseReduction (*value*)\r\n

9.1.4 Example

1) http://10.1.0.1/api/wbgetcambasic.cgi

9.1.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

9.2 Reference of Frame Rate Settings

wbgetcamframerate.cgi

9.2.1 Syntax

1) http://<*camip*>/api/wbgetnwkframerate.cgi

9.2.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

9.2.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetcamframerate.cgi indicates the notification data format to the client when data has been obtained normally.

20 OK\r\n
\r\n
[Camera-FrameRate]\r\n
Rate (*value*)\r\n

9.2.4 Example

1) http://10.1.0.1/api/wbgetcamframerate.cgi

9.2.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

9.3 Reference of Alarm Settings

wbgetcamalarm.cgi

9.3.1 Syntax

1) http://<*camip*>/api/wbgetcamalarm.cgi

9.3.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

9.3.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetcamalarm.cgi indicates the notification data format to the client when data has been obtained normally.

```
20 OK\r\n
\r\n
[Camera-Alarm]\r\n
<AlarmType>\r\n
Mode (value)\r\n
InputPolarity (value)\r\n
<MotionDetection>\r\n
Mode (value)\r\n
Sensitivity (value)\r\n
<HoldingOutTime>\r\n
Time (value)\r\n
```

9.3.4 Example

1) http://10.1.0.1/api/wbgetcamalarm.cgi

9.3.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

9.4 Reference of Recording Settings

wbgetcamrecord.cgi

9.4.1 Syntax

1) http://<*camip*>/api/wbgetcamrecord.cgi

9.4.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

9.4.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetcamrecord.cgi indicates the notification data format to the client when data has been obtained normally.

20 OK\r\n
\r\n
[Camera-Recording]\r\n
<Alarm>\r\n
AlarmInRecMode (value)\r\n
ExtControlInRecMode (*value*)\r\n
MotionRecMode (value)\r\n
NumberOfPrePicture (value)\r\n
NumberOfPostPicture (value)\r\n
Interval (value)\r\n
<Normal>\r\n
Mode (value)\r\n
Monday (value)\r\n
Tuesday (value)\r\n
Wednesday (value)\r\n
Thursday (value)\r\n
Friday (value)\r\n
Saturday (value)\r\n
Sunday (value)\r\n
Pattern1Start (value)\r\n
Pattern1End (value)\r\n
Pattern2Start (value)\r\n
Pattern2End (value)\r\n
Interval (value)\r\n
<RecOverwriting>
Mode (value)\r\n

9.4.4 Example

1) http://10.1.0.1/api/wbgetcamrecord.cgi

9.4.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

9.5 Reference of FTP Recording Settings

wbgetcamftprecord.cgi

9.5.1 Syntax

1) http://<*camip*>/api/wbgetcamftprecord.cgi

9.5.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

9.5.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetcamftprecord.cgi indicates the notification data format to the client when data has been obtained normally.

20 OK\r\n
\r\n
[Camera-FTPclient]\r\n
<FTPCondition>\r\n
Mode (*value*)\r\n
AlarmInMode (*value*)\r\n
MotionMode (*value*)\r\n
<Server-1>\r\n
Name (*value*)\r\n
LoginID (*value*)\r\n
Password (*value*)\r\n
FTPcPortNumber (*value*)\r\n
FTPMode (*value*)\r\n
ConnectMode (*value*)\r\n
<Server-2>\r\n
Name (*value*)\r\n
LoginID (*value*)\r\n
Password (*value*)\r\n
FTPcPortNumber (*value*)\r\n
FTPMode (*value*)\r\n
ConnectMode (*value*)\r\n
<AttachedPicture>
Size (*value*)\r\n
FileNameMode (*value*)\r\n
<HowToUse>\r\n
Detail (*value*)\r\n
<bySchedule>\r\n
Monday (*value*)\r\n
Tuesday (*value*)\r\n
Wednesday (*value*)\r\n
Thursday (*value*)\r\n
Friday (*value*)\r\n
Saturday (*value*)\r\n
Sunday (*value*)\r\n
Pattern1Start (*value*)\r\n
Pattern1End (*value*)\r\n

To the next page.

From the last page.

Pattern2Start (*value*)\r\n	Server1Path (*value*)\r\n
Pattern2End (*value*)\r\n	Server2Path (*value*)\r\n
Interval (*value*)\r\n	<byExtControlIn>\r\n
FileName (*value*)\r\n	Interval (*value*)\r\n
Server1Path (*value*)\r\n	FileName (*value*)\r\n
Server2Path (*value*)\r\n	Server1Path (*value*)\r\n
<byAlarm>\r\n	Server2Path (*value*)\r\n
NumberOfPrePicture (*value*)\r\n	<Accumulation>\r\n
NumberOfPostPicture (*value*)\r\n	Mode (*value*)\r\n
Interval (*value*)\r\n	Interval (*value*)\r\n
AiFileName (*value*)\r\n	OverWriting (*value*)\r\n
MdFileName (*value*)\r\n	

9.5.4 Example

1) http://10.1.0.1/api/wbgetcamftprecord.cgi

9.5.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

9.6 Reference of E-mail Settings

wbgetcammail.cgi

9.6.1 Syntax

1) http://<*camip*>/api/wbgetcammail.cgi

9.6.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

9.6.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetcammail.cgi indicates the notification data format to the client when data has been obtained normally.

20 OK\r\n
\r\n
[Camera-Mail]\r\n
<Authentication>\r\n
Mode (*value*)\r\n
SMTPServer (*value*)\r\n
POP3Server (*value*)\r\n
POP3ID (*value*)\r\
POP3Password (*value*)\r\n
AdminMailAddr (*value*)\r\n
<ConditionByAlarmIn>\r\n
Mode (*value*)\r\n
Subject (*value*)\r\n
Body (*value*)\r\n
URLMode (*value*)\r\n
URLInfo (*value*)\r\n
AttachMode (*value*)\r\n
<ConditionByMotion>\r\n
Mode (*value*)\r\n
Subject (*value*)\r\n
Body (*value*)\r\n
URLMode (*value*)\r\n
URLInfo (*value*)\r\n
AttachMode (*value*)\r\n
<AttachSize>\r\n
AttachSize (*value*)\r\n
<Recipient>\r\n
MustSendAdminMode (*value*)\r\n
<MailTo-1>\r\n
RecipientAddr (*value*)\r\n
AlarmIn (*value*)\r\n
Motion (*value*)\r\n
<MailTo-2>\r\n
RecipientAddr (*value*)\r\n
AlarmIn (*value*)\r\n
Motion (*value*)\r\n

To the next page.

From the last page.

<MailTo-3>\r\n	<MailTo-7>\r\n
RecipientAddr (*value*)\r\n	RecipientAddr (*value*)\r\n
AlarmIn (*value*)\r\n	AlarmIn (*value*)\r\n
Motion (*value*)\r\n	Motion (*value*)\r\n
<MailTo-4>\r\n	<MailTo-8>\r\n
RecipientAddr (*value*)\r\n	RecipientAddr (*value*)\r\n
AlarmIn (*value*)\r\n	AlarmIn (*value*)\r\n
Motion (*value*)\r\n	Motion (*value*)\r\n
<MailTo-5>\r\n	<MailTo-9>\r\n
RecipientAddr (*value*)\r\n	RecipientAddr (*value*)\r\n
AlarmIn (*value*)\r\n	AlarmIn (*value*)\r\n
Motion (*value*)\r\n	Motion (*value*)\r\n
<MailTo-6>\r\n	<MailTo-10>\r\n
RecipientAddr (*value*)\r\n	RecipientAddr (*value*)\r\n
AlarmIn (*value*)\r\n	AlarmIn (*value*)\r\n
Motion (*value*)\r\n	Motion (*value*)\r\n

9.6.4 Example

1) http://10.1.0.1/api/wbgetcammail.cgi

9.6.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

9.7 Reference of Audio Settings

wbgetcamsound.cgi

9.7.1 Syntax

1) http://<*camip*>/api/wbgetcamsound.cgi

9.7.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

9.7.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetcamsound.cgi indicates the notification data format to the client when data has been obtained normally.

20 OK\r\n
\r\n
[Camera-Sound]\r\n
<Input>\r\n
Mode (*value*)\r\n
Level (*value*)\r\n
<Output>\r\n
Mode (*value*)\r\n
Level (*value*)\r\n

9.7.4 Example

1) http://10.1.0.1/api/wbgetcamsound.cgi

9.7.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

10. Reference of Pan/Tilt Setting

- wbgetptbasic.cgi - Reference of Pan/Tilt Basic Settings
- wbgetptpreset.cgi - Reference of Preset Settings
- wbgetptautopatrol.cgi - Reference of Auto Patrol Settings

wbget pt func .cgi

(1) (2) (3) (4)

(1) Indicates a reference API.
(2) Indicates a Pan/Tilt type reference API.
(3) Indicates the function matched to the WEB setting page.
(4) Every API is started and executed as cgi.

On and after the next page, the camera reference API is shown.

10.1 Reference of Pan/Tilt Basic Settings

wbgetptbasic.cgi

10.1.1 Syntax

1) http://<*camip*>/api/wbgetptbasic.cgi

10.1.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

10.1.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetptbasic.cgi indicates the notification data format to the client when data has been obtained normally.

```
20 OK\r\n
\r\n
[PanTilt-General]\r\n
<PTCondition>\r\n
ScanSpeed (value)\r\n
PowerUp (value)\r\n
FreezeFrame (value)\r\n
<AssociationToAlarm>\r\n
Mode (value)\r\n
PTByAlarmIn (value)\r\n
PTByMotion (value)\r\n
PresetNumber (value)\r\n
Resume (value)\r\n
ResumeTime (value)\r\n
<LeftLimitSetting>\r\n
Mode (value)\r\n
Degree (value)\r\n
<RightLimitSetting>\r\n
Mode (value)\r\n
Degree (value)\r\n
<TopLimitSetting>\r\n
Mode (value)\r\n
Degree (value)\r\n
<BottomLimitSetting>\r\n
Mode (value)\r\n
Degree (value)\r\n
```

10.1.4 Example

1) http://10.1.0.1/api/wbgetptbasic.cgi

10.1.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.
2) **All the parameters given to 'Degree' are based on "Ceiling Mount". Refer to Appendix C for details.**

10.2 Reference Preset Settings

wbgetptpreset.cgi

10.2.1 Syntax

1) http://<*camip*>/api/wbgetptpreset.cgi

10.2.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

10.2.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetptpreset.cgi indicates the notification data format to the client when data has been obtained normally.

```
20 OK\r\n
\r\n
[PanTilt-Preset]\r\n
<PresetNumber-1>\r\n
PresetName (value)\r\n
PanPosition (value)\r\n
TiltPosition (value)\r\n
Focus (value)\r\n
FocusType (value)\r\n
    ……
    ……
<PresetNumber-64>\r\n
PresetName (value)\r\n
PanPosition (value)\r\n
TiltPosition (value)\r\n
Focus (value)\r\n
FocusType (value)\r\n
```

10.2.4 Example

1) http://10.1.0.1/api/wbgetptpreset.cgi

10.2.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

10.3 Reference of Auto Patrol Settings

wbgetptautopatrol.cgi

10.3.1 Syntax

1) http://<*camip*>/api/wbgetptautopatrol.cgi

10.3.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

10.3.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetptautopatrol.cgi indicates the notification data format to the client when data has been obtained normally.

```
20 OK\r\n
\r\n
[PanTilt-AutoPatrol]\r\n
<StayTime>\r\n
StayTime (value)\r\n
<AutoPatrolStopNumber>\r\n
PresetNumber-1 (value)\r\n
PresetNumber-2 (value)\r\n
    ……
PresetNumber-64 (value)\r\n
```

10.3.4 Example

1) http://10.1.0.1/api/wbgetptautopatrol.cgi

10.3.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

11. Reference of Network Setting

- wbgetnwkbasic.cgi - Reference of Network Basic Settings
- wbgetnwkbandwidth.cgi - Reference of Bandwidth Control Settings
- wbgetnwkddns.cgi - Reference of DDNS Settings
- wbgetnwkftpserver.cgi - Reference of FTP Server Settings
- wbgetnwkmac.cgi - Reference of MAC Address

wbget nwk func .cgi

(1) (2) (3) (4)

(1) Indicates a reference API.
(2) Indicates a Pan/Tilt type reference API.
(3) Indicates the function matched to the WEB setting page.
(4) Every API is started and executed as cgi.

On and after the next page, the camera reference API is shown.

11.1 Reference of Network Basic Settings

wbgetnwkbasic.cgi

11.1.1 Syntax

1) http://<*camip*>/api/wbgetnwkbasic.cgi

11.1.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

11.1.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetnwkbasic.cgi indicates the notification data format to the client when data has been obtained normally.

20 OK\r\n
\r\n
[Network-General]\r\n
CameraName (*value*)\r\n
DHCPMode (*value*)\r\n
IPAddress (*value*)\r\n
SubnetMask (*value*)\r\n
DefaultGateway (*value*)\r\n
PrimaryDNS (*value*)\r\n
SecondaryDNS (*value*)\r\n
CameraAutoDetection (*value*)\r\n
HTTPPortNumber (*value*)\r\n

11.1.4 Example

1) http://10.1.0.1/api/wbgetnwkbasic.cgi

11.1.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

11.2 Reference of Bandwidth Control Settings

wbgetnwkbandwidth.cgi

11.2.1 Syntax

1) http://<camip>/api/wbgetnwkbandwidth.cgi

11.2.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

11.2.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetnwkbandwidth.cgi indicates the notification data format to the client when data has been obtained normally.

20 OK\r\n
\r\n
[Network-BandWidth]\r\n
Mode (*value*)\r\n
Numeric (*value*)\r\n
BandWidth (*value*)\r\n

11.2.4 Example

1) http://10.1.0.1/api/wbgetnwkbandwidth.cgi

11.2.5 Note

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

11.3 Reference of DDNS Settings

wbgetnwkddns.cgi

11.3.1 Syntax

1) http://<*camip*>/api/wbgetnwkddns.cgi

11.3.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

11.3.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetnwkddns.cgi indicates the notification data format to the client when data has been obtained normally.

20 OK\r\n
\r\n
[Network-DDNS]\r\n
Mode (*value*)\r\n
Server (*value*)\r\n
UserID (*value*)\r\n
Password (*value*)\r\n

11.3.4 Example

1) http://10.1.0.1/api/wbgetnwkddns.cgi

11.3.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

11.4 Reference of FTP Server Settings

wbgetnwkftpserver.cgi

11.4.1 Syntax

1) http://<*camip*>/api/wbgetnwkftpserver.cgi

11.4.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

11.4.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetnwkftpserver.cgi indicates the notification data format to the client when data has been obtained normally.

```
20 OK\r\n
\r\n
[Network-FTPserver]\r\n
Mode (value)\r\n
LoginID (value)\r\n
Password (value)\r\n
MaxConnection (value)\r\n
```

11.4.4 Example

1) http://10.1.0.1/api/wbgetnwkftpserver.cgi

11.4.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

11.5 Get MAC Address

wbgetnwkmac.cgi

11.5.1 Syntax

2) http://<*camip*>/api/wbgetnwkmac.cgi

11.5.2 Input

Item	Type	Entry name	Value
		-	-

11.5.3 Output

Code	Status
-	-

wbgetnwkmac.cgi indicates the notification data format to the client when data has been obtained normally.

```
MAC="01:23:45:67:89:ab"
```

11.5.4 Example

1) http://10.1.0.1/api/wbgetnwkmac.cgi

11.5.5 Notes

1) This API does not require any parameter.

12. Reference of Administrator Functions

- wbgetmultiscreen.cgi - Reference of Multi-Screen Information

wbget multiscree .cgi

(1) (2) (3)

(1) Indicates a reference API.
(2) Indicates an Multi-Screen reference API.
(3) Every API is started and executed as cgi.

On the next page, the camera reference API is shown.

12.1 Reference of Multi-Screen Information

wbgetmultiscreen.cgi

12.1.1 Syntax

1) http://<*camip*>/api/wbgetmultiscreen.cgi

12.1.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

12.1.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetmultiscreen.cgi indicates the notification data format to the client when data has been obtained normally.

20 OK\r\n
\r\n
[Mulsti-Screen-Display]\r\n
<DisplayMode>\r\n
Mode (*value*)\r\n
<MyCameraInfo>\r\n
Name (*value*)\r\n
Addr (*value*)\r\n
HTTPPortNumber (*value*)\r\n
Kind (*value*)\r\n
Selection (*value*)\r\n
<Camera-1>\r\n
Name (*value*)\r\n
Addr (*value*)\r\n
HTTPPortNumber (*value*)\r\n
Kind (*value*)\r\n
Selection (*value*)\r\n
. . . . .
<Camera-30>\r\n
Name (*value*)\r\n
Addr (*value*)\r\n
HTTPPortNumber (*value*)\r\n
Kind (*value*)\r\n
Selection (*value*)\r\n

12.1.4 Example

1) http://10.1.0.1/api/wbgetmultiscreen.cgi

12.1.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

13. Reference of Administrator Functions

- wbgetadminuserinfo.cgi - Reference of User Information
- wbgetadminuserfunctions.cgi - Reference of User Operation Restrinction
- wbgetadminTaD.cgi - Reference of Date and Time Settings
- wbgetadmintime.cgi - Reference of Current Camera Time

wbget admin func .cgi

(1) (2) (3) (4)

(1) Indicates a reference API.
(2) Indicates an admin type reference API.
(3) Indicates the function matched to the WEB setting page.
(4) Every API is started and executed as cgi.

On and after the next page, the camera reference API is shown.

13.1 Reference of User Information

wbgetadminuserinfo.cgi

13.1.1 Syntax

1) http://<*camip*>/api/wbgetadminuserinfo.cgi

13.1.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

13.1.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetadminuserinfo.cgi indicates the notification data format to the client when data has been obtained normally.

20 OK\r\n
\r\n
[User-Info]\r\n
LoginRestriction (*value*)\r\n

13.1.4 Example

1) http://10.1.0.1/api/wbgetadminuserinfo.cgi

13.1.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

13.2 Reference of User Operation Restriction

wbgetadminuserfunctions.cgi

13.2.1 Syntax

1) http://<*camip*>/api/wbgetadminuserfunctions.cgi

13.2.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

13.2.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetadminuserfunctions.cgi indicates the notification data format to the client when data has been obtained normally.

20 OK\r\n
\r\n
[Admin-UserFunctions]\r\n
<FunctionRestriction>\r\n
Mode (*value*)\r\n
<Function>\r\n
Resolution (*value*)\r\n
CompressionRatio (*value*)\r\n
AEControl (*value*)\r\n
Mounting (*value*)\r\n
FocusRange (*value*)\r\n
AFDetectionArea (*value*)\r\n
AutoBW (*value*)\r\n
WhiteBalance (*value*)\r\n
WBManualGain (*value*)\r\n
AWBOffset (*value*)\r\n
AWBRange (*value*)\r\n
AutoGainControl (*value*)\r\n
SlowShutterMax (*value*)\r\n
BackLightCompensation (*value*)\r\n
Sharpness (*value*)\r\n
Gain (*value*)\r\n
NoiseReduction (*value*)\r\n
Zoom (*value*)\r\n
Focus (*value*)\r\n
Iris (*value*)\r\n
Audio (*value*)\r\n
PictureSaving (*value*)\r\n
PanTilt (*value*)\r\n
AutoPatrol (*value*)\r\n
Scan (*value*)\r\n
Preset (*value*)\r\n
PlayAlarm (*value*)\r\n
PlayNormal (*value*)\r\n
PlayEXTControl (*value*)\r\n

13.2.4 Example

1) http://10.1.0.1/api/wbgetadminuserfunctions.cgi

13.2.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

13.3 Reference of Time and Date Settings

wbgetadminTaD.cgi

13.3.1 Syntax

1) http://<*camip*>/api/wbgetadminTaD.cgi

13.3.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

13.3.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetadminTaD.cgi indicates the notification data format to the client when data has been obtained normally.

20 OK\r\n
\r\n
[Admin-T&D]\r\n
<TimeZone>\r\n
Location (*value*)\r\n
<NTP>\r\n
Mode (*value*)\r\n
Server (*value*)\r\n
AdjustingCycle (*value*)\r\n
<DaylightSaving>
Mode (*value*)\r\n

13.3.4 Example

1) http://10.1.0.1/api/wbgetadminTaD.cgi

13.3.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

13.4 Reference of Current Camera Time

wbgetadmintime.cgi

13.4.1 Syntax

1) http://<*camip*>/api/wbgetadmintime.cgi

13.4.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

13.4.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetadmintime.cgi indicates the notification data format to the client when data has been obtained normally.

20 OK\r\n
\r\n
2005-10-21 13:25:03\r\n

13.4.4 Example

1) http://10.1.0.1/api/wbgetadmintime.cgi

13.4.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

14. Reference of Log Management Setting

- wbgetlogconditions.cgi - Reference of Log Filtering Settings
- wbgetloglist.cgi - Reference of Log Lists

wbget log func .cgi

(1) (2) (3) (4)

(1) Indicates a reference API.
(2) Indicates a log type reference API.
(3) Indicates the function matched to the WEB setting page.
(4) Every API is started and executed as cgi.

On and after the next page, the camera reference API is shown.

14.1 Reference of Log Filtering Settings

wbgetlogconditions.cgi

14.1.1 Syntax

1) http://<*camip*>/api/wbgetlogconditions.cgi

14.1.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

14.1.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetlogconditions.cgi indicates the notification data format to the client when data has been obtained normally.

```
20 OK\r\n
\r\n
[Log-Condition]\r\n
Display (value)\r\n
Filter (value)\r\n
Which (value)\r\n
NumberOf (value)\r\n
Keyword (value)\r\n
Year (value)\r\n
Month (value)\r\n
Day (value)\r\n
Hour (value)\r\n
Minute (value)\r\n
Second (value)\r\n
BcAd (value)\r\n
```

14.1.4 Example

1) http://10.1.0.1/api/wbgetlogconditions.cgi

14.1.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

14.2 Reference of Log Lists

wbgetloglist.cgi

14.2.1 Syntax

1) http://<*camip*>/api/wbgetloglist.cgi

14.2.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

14.2.3 Output

Code	Status
20	OK
32	InvalidValue
33	InvalidOperand

Code	Status
92	CriticalError

wbgetloglist.cgi indicates the notification data format to the client when data has been obtained normally.

(success)
== Total log messages – ***n1*** ==\r\n
- Show all log messages. \r\n
list\r\n
. . .
== Appeared log messages – ***n2***/***n1***(***n3***%) ==\r\n

(fail)
40 FailToGet\r\n

* In both cases of success and failure, the format is not the HTML format.

The output format of each log list is as follows:

First line) Indicates the total number of logs saved in the IK-WB21A by ***n1***.
Second line) Indicates the conditions entered by log filter (display condition) setting.
Third line) Indicates the actual log list in and after this line.
Last line) Indicates the number of logs filtered in the condition shown in the second line by ***n2***. The ratio occupied in the whole is indicated by ***n3***.

The output format of each log list is as follows:

[1] Sat Sep 10 05:01:34 2005 2000221 rgst> Success to save. Camera info.
(1) (2) (3) (4)

(5) Log item number
(6) Date/time of log output (ASCII time)
(7) Log control number
(8) Contents of detailed log message

14.2.4 Example

1) http://10.1.0.1/api/wbgetloglist.cgi

14.2.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.

IX. IK-WB21A List Operation type API List

Item No.	Item	Sub-number	menu	API name	Function type
15	Alarm In List	15-1	Reference of Alarm In List	wblistalarm.cgi	3 types
			Deletion of All Alarm In List		
			Deletion of Alarm In List by Time and Date		
	Normal List	15-2	Reference of Normal List	wblistnormal.cgi	3 types
			Deletion of All Normal List		
			Deletion of Normal List by Time and Date		
	Ext. Control In List	15-3	Reference of Ext. Control In List	wblistextcontrol.cgi	3 types
			Deletion of All Ext. Control In List		
			Deletion of Ext. Control In List by Time and Date		

15. List Operation

- wblistalarm.cgi - Reference/Deletion of Alarm In List
- wblistnormal.cgi - Refenrece/Deletion of Normal List
- wblistextcontrol.cgi - Refenrece/Deletion of Ext. Control In List

wblist func .cgi

(1) (2) (3)

(1) Indicates a list operation API.
(2) Indicates a list operation type reference/deletion API.
(3) Indicates the function matched to the WEB setting page.
(4) Every API is started and executed as cgi.

On and after the next page, the camera reference API is shown.

15.1 Reference/Deletion of Alarm In List

wblistalarm.cgi

15.1.1 Syntax

1) http://<*camip*>/api/wblistalarm.cgi?type=Show
2) http://<*camip*>/api/wblistalarm.cgi?type=RemoveAll
3) http://<*camip*>/api/wblistalarm.cgi?type=RemoveSpan&StartDT=<*yyyymmddHHMMSS*>&EndDT=<*yyyymmddHHMMSS*>

15.1.2 Input

Item	Type	Entry name	Value
Reference of all list	type=Show	-	-
All deletion of list	type=RemoveAll	-	-
Deletion of list by Time and Date	type=RemoveSpan	StartDT	yyyymmddHHMMSS format
		EndDT	yyyymmddHHMMSS format
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

15.1.3 Output

1) When at type=Show

Code	Status
20	OK
31	InvalidEntry
32	InvalidValue

Code	Status
60	FailAction

wblistalarm.cgi?type=Show indicates the notification data format to the client when data has been obtained normally.

```
20 OK\r\n
\r\n
alarmlist\r\n
alarmlist\r\n
...
```

* In both cases of success and failure, the format is not the HTML format.

At success, the list output format is as follows:

```
 [      1] motion     Thu Feb   6 05:01:34 2003
(1)        (2)          (3)
```

(1) List item number
(2) Type of alarm list
exalarm … Alarm In
motion …. Motion Detection
(3) List recoding date/time (ASCII time)

When a list is to be output or when a list is being output, an error may occur and the list output may be stopped halfway. In this case, a status to notify the error is output after the last list.

A) case 1	B) case 2
20 OK\r\n \r\n alarmlist-1\r\n alarmlist-2\r\n \r\n 60 FailAction\r\n	20 OK\r\n \r\n \r\n 60 FailAction\r\n

* In both cases of success and failure, the format is not the HTML format.

2) When at type=RemoveAll/RemoveSpan

Code	Status
20	OK
31	InvalidEntry
32	InvalidValue

Code	Status
60	FailAction

15.1.4 Example

1) http://10.1.0.1/api/wblistalarm.cgi?type=Show
2) http://10.1.0.1/api/wblistalarm.cgi?type=RemoveAll
3) http://10.1.0.1/api/wblistalarm.cgi?type=RemoveSpan&StartDT=20050112000000&EndDT=20050124235959

15.1.5 Notes

1) The relation between StartDT and EndDT at type= RemoveSpan should be (StartDT <= EndDT) and both should be of the yyymmddHHMMSS format.
2) At type=RemoveAll and type=RemoveSpan, the corresponding list is immediately deleted without confirming the intention.
3) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.
4) This API does not check type=<*value*> and any argument other than StartDT=<*value*> and EndDT=<*value*> at type=RemoveSpan. Accordingly, if there are illegal arguments other than these, they are ignored.

15.2 Reference/Deletion of Normal List

wblistnormal.cgi

15.2.1 Syntax

1) http://<*camip*>/api/wblistnormal.cgi?type=Show
2) http://<*camip*>/api/wblistnormal.cgi?type=RemoveAll
3) http://<*camip*>/api/wblistnormal.cgi?type=RemoveSpan&StartDT=<*yyyymmddHHMMSS*>&EndDT=<*yyyymmddHHMMSS*>

15.2.2 Input

Item	Type	Entry name	Value
Reference of all list	type=Show	-	-
All deletion of list	type=RemoveAll	-	-
Deletion of list by Time and Date	type=RemoveSpan	StartDT	yyyymmddHHMMSS format
		EndDT	yyyymmddHHMMSS format
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

15.2.3 Output

1) When at type=Show

Code	Status
20	OK
31	InvalidEntry
32	InvalidValue

Code	Status
60	FailAction

wblistnormal.cgi?type=Show indicates the notification data format to the client when data has been obtained normally.

```
20 OK\r\n
\r\n
normallist\r\n
normallist\r\n
...
```

* In both cases of success and failure, the format is not the HTML format.

The list output format is as follows:

```
 [    1] normal    Thu Feb  6 05:01:34 2003
(1)      (2)      (3)
```

(1) List item number
(2) Type of normal list
normal … Normal list
(3) List recoding date/time (ASCII time)

When a list is to be output or when a list is being output, an error may occur and the list output may be stopped halfway. In this case, a status to notify the error is output after the last list.

A) case 1
```
20 OK\r\n
\r\n
normallist-1\r\n
normallist-2\r\n
\r\n
60 FailAction\r\n
```

B) case 2
```
20 OK\r\n
\r\n
\r\n
60 FailAction\r\n
```

* In both cases of success and failure, the format is not the HTML format.

2) When at type=RemoveAll/RemoveSpan

Code	Status
20	OK
31	InvalidEntry
32	InvalidValue

Code	Status
60	FailAction

15.2.4 Example
1) http://10.1.0.1/api/wblistnormal.cgi?type=Show
2) http://10.1.0.1/api/wblistnormal.cgi?type=RemoveAll
3) http://10.1.0.1/api/wblistnormal.cgi?type=RemoveSpan&StartDT=20050112000000&EndDT=20050124235959

15.2.5 Notes
1) The relation between StartDT and EndDT at type= RemoveSpan should be (StartDT <= EndDT) and both should be of the yyymmddHHMMSS format.
2) At type=RemoveAll and type=RemoveSpan, the corresponding list is immediately deleted without confirming the intention.
3) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.
4) This API does not check type=<*value*> and any argument other than StartDT=<*value*> and EndDT=<*value*> at type=RemoveSpan. Accordingly, if there are illegal arguments other than these, they are ignored.

15.3 Reference/Deletion of Ext. Control In List

wblistextcontrol.cgi

15.3.1 Syntax

1) http://<*camip*>/api/wblistextcontrol.cgi?type=Show
2) http://<*camip*>/api/wblistextcontrol.cgi?type=RemoveAll
3) http://<*camip*>/api/wblistextcontrol.cgi?type=RemoveSpan&StartDT=<*yyyymmddHHMMSS*>&EndDT=<*yyyymmddHHMMSS*>

15.3.2 Input

Item	Type	Entry name	Value
Reference of all list	type=Show	-	-
All deletion of list	type=RemoveAll	-	-
Deletion of list by Time and Date	type=RemoveSpan	StartDT	yyyymmddHHMMSS format
		EndDT	yyyymmddHHMMSS format
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

15.3.3 Output

1) When at type=Show

Code	Status
20	OK
31	InvalidEntry
32	InvalidValue

Code	Status
60	FailAction

wblistextcontrol.cgi?type=Show indicates the notification data format to the client when data has been obtained normally.

```
20 OK\r\n
\r\n
extcontrollist\r\n
extcontrollist\r\n
...
```

* In both cases of success and failure, the format is not the HTML format.

The list output format is as follows:

```
 [    1] extcontrol    Thu Feb  6 05:01:34 2003
(1)       (2)          (3)
```

(1) List item number
(2) Type of Ext. Control In list
extcontrol … Ext. Control In
(3) List recoding date/time (ASCII time)

When a list is to be output or when a list is being output, an error may occur and the list output may be stopped halfway. In this case, a status to notify the error is output after the last list.

A) case 1
```
20 OK\r\n
\r\n
extcontrollist-1\r\n
extcontrollist-2\r\n
\r\n
60 FailAction\r\n
```

B) case 2
```
20 OK\r\n
\r\n
\r\n
60 FailAction\r\n
```

* In both cases of success and failure, the format is not the HTML format.

2) When at type=RemoveAll/RemoveSpan

Code	Status
20	OK
31	InvalidEntry
32	InvalidValue

Code	Status
60	FailAction

15.3.4 Example
1) http://10.1.0.1/api/wblistextcontrol.cgi?type=Show
2) http://10.1.0.1/api/wblistextcontrol.cgi?type=RemoveAll
3) http://10.1.0.1/api/wblistextcontrol.cgi?type=RemoveSpan&StartDT=20050112000000&EndDT=20050124235959

15.3.5 Notes
1) The relation between StartDT and EndDT at type= RemoveSpan should be (StartDT <= EndDT) and both should be of the yyymmddHHMMSS format.
2) At type=RemoveAll and type=RemoveSpan, the corresponding list is immediately deleted without confirming the intention.
3) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.
4) This API does not check type=<*value*> and any argument other than StartDT=<*value*> and EndDT=<*value*> at type=RemoveSpan. Accordingly, if there are illegal arguments other than these, they are ignored.

X. IK-WB21A External Storage Operation Type API List

Item No.	Item	Sun-number	Menu	Api name	Function type
16	External Storage	16-1	Insert notification	wbstoragestatus.cgi	-
		16-2	Mount/Unmount execute	wbstoragemount.cgi	2 types
		16-3	Mount status notification	wbstoragemountstatus.cgi	-
		16-4	Format	wbstorageformat.cgi	-

16. External Storage

- wbstoragestatus.cgi - Check Storage Inserted Status
- wbstoragemount.cgi - Execute Storage Mount/Unmount
- wbstoragemountstatus.cgi - Check Storage Mount Status
- wbstorageformat.cgi - Format Storage

wbstorage func .cgi

(1) (2) (3)

(1) Indicates a storage operation API.
(2) Indicates a storage operation type API.
(3) Every API is started and executed as cgi.

On and after the next page, the camera reference API is shown.

16.1 Check Storage Inserted Status

wbstoragestatus.cgi

16.1.1 Syntax

1) http://<*camip*>/api/wbstoragestatus.cgi

16.1.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

16.1.3 Output

Code	Status
21	Inserted
71	NotInserted

16.1.4 Example

1) http://10.1.0.1/api/wbstoragestatus.cgi

16.1.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.
2) This API does not check any argument other than OpeLog=No/Yes. Accordingly, if there are illegal arguments other than these, they are ignored.

16.2 Execute Storage Mount/Unmount

wbstoragemount.cgi

16.2.1 Syntax

1) http://<*camip*>/api/wbstoragemount.cgi?type=<*value*>

16.2.2 Input

Item	Type	Entry name	Value
Execute mount	type=Mount	-	-
Execute unmount	type=Unmount	-	-
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

16.2.3 Output

Code	Status
20	OK
30	InvalidType
73	FailedToMount

16.2.4 Example

1) http://10.1.0.1/api/wbstoragemount.cgi?type=Mount
2) http://10.1.0.1/api/wbstoragemount.cgi?type=Unmount

16.2.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.
2) This API does not check any argument other than OpeLog=No/Yes and type=Mount/Unmount. Accordingly, if there are illegal arguments other than these, they are ignored.

16.3 Check Storage Mount Status

wbstoragemountstatus.cgi

16.3.1 Syntax

1) http://<*camip*>/api/wbstoragemountstatus.cgi

16.3.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

16.3.3 Output

Code	Status
22	Mounted
72	NotMounted

16.3.4 Example

1) http://10.1.0.1/api/wbstoragemountstatus.cgi

16.3.5 Notes

1) In the IK-WB21A, auto mount of an external storage is not executed. Accordingly, the user must execute one of the followings after mounting the external storage in the IK-WB21.
   - Execute mount by “SD in/out wizard” on the WEB setting page.
   - Execute mount by using API “wbstoragemount.cgi”.
2) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.
3) This API does not check any argument other than OpeLog=No/Yes. Accordingly, if there are illegal arguments other than these, they are ignored.

16.4 Format Storage

wbstorageformat.cgi

16.4.1 Syntax

1) http://<*camip*>/api/wbstorageformat.cgi

16.4.2 Input

Item	Type	Entry name	Value
Log output control of cgi common to all types		OpeLog	No/Yes [default: Yes] (omissible)

16.4.3 Output

Code	Status
20	OK
74	FailedToFormat

16.4.4 Example

1) http://10.1.0.1/api/wbstorageformat.cgi

16.4.5 Notes

1) When OpeLog=No is entered, a log related to API start/end is not output. When it is omitted, it is regarded as OpeLog=Yes.
2) This API does not check any argument other than OpeLog=No/Yes. Accordingly, if there are illegal arguments other than these, they are ignored.

XI. PTZF Operation Type API List

Item No.	Item	Sub-number	Menu	API name	Function type
17	PTZF Operation	17-1	PAN/TILT Operation	wbpantiltapi.cgi	-
		17-2	Zoom Operation	wbsetzoom.cgi	1 type
		17-3	Focus Operation	wbsetfocus.cgi	1 type
		17-4	IRIS Operation	wbsetiris.cgi	1 type
		17-5	Get Current Pan/Tilt/Zoom Position	wbgetptzposition.cgi	1 type

17. PTZF Operation

- wbpantiltapi.cgi - Pan/Tile Operation
- wbsetzoom.cgi - Zoom Operation
- wbsetfocus.cgi - Focus Operation
- wbsetiris.cgi - IRIS Operation
- wbgetptzposition.cgi - Get current Pan/Tilt/Zoom Position

wb func .cgi

(1) (2) (3)

(1) Indicate a camera operation API.
(2) Indicate a PTZF operation type API.
(3) Every API is started and executed as cgi.

The camera reference API is shown on the following pages.

17.1 Pan/Tilt Operation

wbpantiltapi.cgi

17.1.1 Syntax

1) http://<*camip*>/api/wbpantiltapi.cgi?cont_2=<*value*>[&id=<*value*>]

17.1.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
PT operation	-	cont_2	1:Pan Left 2:Pan Right 4:Tilt Up 8:Tilt Down 16:Center 32:Scan 64:Auto Patrol	-	-
		id	any	-	-

17.1.3 Output

Code	Status
20	OK
32	InvalidValue
90	CriticalError

17.1.4 Example

1) http://10.1.0.1/api/wbpantiltapi.cgi?cont_2=32&id=20050910011600

17.1.5 Notes

1) This API requires designated values for “cont_2”.
2) ‘id’ is used to prevent the browser from reading the cache. If the cache is not used for the development application, id may have any value.
3) **All the parameters are based on “Ceiling Mount”. Therefore, in case of a“Desktop Mount”, set a reversed parameter for right/left and top/bottom sides respectively.** Refer to *Appendix.C for details.*

17.2 Zoom Operation

wbsetzoom.cgi

17.2.1 Syntax

1) http://<*camip*>/api/wbsetzoom.cgi?type=Set&Zoom=<*value*>

17.2.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
Zoom operation	type=Set	Zoom	Tele/Wide	-	-

17.2.3 Output

Code	Status
20	OK
31	InvalidEntry
32	InvalidValue

Code	Status
90	CriticalError

17.2.4 Example

1) http://10.1.0.1/api/wbsetzoom.cgi?type=Set&Zoom=Tele
2) http://10.1.0.1/api/wbsetzoom.cgi?type=Set&Zoom=Wide

17.2.5 Notes

N/A

17.3 Focus Operation

wbsetfocus.cgi

17.3.1 Syntax

1) http://<*camip*>/api/wbsetfocus.cgi?type=Set&Focus=<*value*>

17.3.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
Focus operation	type=Set	Focus	Near/Far/Auto	Auto	

17.3.3 Output

Code	Status
20	OK
31	InvalidEntry
32	InvalidValue

Code	Status
90	CriticalError

17.3.4 Example

1) http://10.1.0.1/api/wbsetfocus.cgi?type=Set&Focus=Near
2) http://10.1.0.1/api/wbsetfocus.cgi?type=Set&Focus=Far
3) http://10.1.0.1/api/wbsetfocus.cgi?type=Set&Focus=Auto

17.3.5 Notes

N/A

17.4 IRIS Operation

wbsetiris.cgi

17.4.1 Syntax

1) http://<*camip*>/api/wbsetiris.cgi?type=Set&Iris=<*value*>

17.4.2 Input

Item	Type	Entry name	Entry value	Std.val	Unit
IRIS Control	type=Set	Iris	Open/Close/Auto	Auto	

17.4.3 Output

Code	Status
20	OK
31	InvalidEntry
32	InvalidValue

Code	Status
90	CriticalError

17.4.4 Example

1) http://10.1.0.1/api/wbsetiris.cgi?type=Set&Iris=Open
2) http://10.1.0.1/api/wbsetiris.cgi?type=Set&Iris=Close
3) http://10.1.0.1/api/wbsetiris.cgi?type=Set&Iris=Auto

17.4.5 Notes

N/A

17.5 Get Current Pan/Tilt/Zoom Position

wbgetptzposition.cgi

17.5.1 Syntax

1) http://<*camip*>/api/wbgetptzposition.cgi

17.5.2 Input

N/A

17.5.3 Output

Code	Status
20	OK
91	FatalError

wbgetptzposition.cgi indicates the notification data format to the client when data has been obtained normally.

20 OK\r\n
\r\n
Zoom (*value*)\r\n
PAN (*value*)\r\n
TILT (*value*)\r\n

17.5.4 Example

1) http://10.1.0.1/api/wbgetptzposition.cgi

17.5.5 Note

N/A

XII. Configuration Information Import and Export

The IK-WB21A can download the camera information set in the IK-WB21A at that time to the client as the “ikwb21conf.ini” file by the “Administrator function -> Configuration information -> Configuration information export” function on the WEB setting page logged in by the administrator ID. The “Configuration information import” function on the same page can change the IK-WB21A settings by uploading the configuration information file set and edited by the client PC other than the camera to the IK-WB21A.

This “ikwb21conf.ini” is the default file name of the IK-WB21A for downloading the configuration information from the IK-WB21A. The user can save the information by changing the name optionally at download. For uploading the configuration information to the IK-WB21A, the file name is always not “ikwb21conf.ini” and any file name given by the user may be used.

The data format to be referenced/set as the configuration information is interrelated with the API. This chapter gives an explanation by collating the configuration information with the API.
For configuration information import, the separate specification “Configuration information format” is also available.

Format of ikwb21conf.ini file >

The IK-WB21A configuration file “ikwb21conf.ini” is set by using the following format.

[main field name]\r\n
<sub-field name>\r\n
entry (*value*)\r\n
entry (*value*)\r\n
...

1) [main field name], <sub-field name>, and *“entry (value)”* of each data definition, which are described later, are described in one row each.
2) Any blank (space or tab) is not allowed between the left and right brackets of the main field name and sub-field name.
3) In *“entry (value)”*, one or more spaces or tabs must be inserted between the entry name and the value.
4) The value is always enclosed in parentheses and a blank may be inserted.
5) The line feed code must be continued to “)” of the parentheses of the value.
6) The line feed code may be of the UNIX format (\n) or DOS format (\r\n).
7) When the next main field is described after one main field is described, a blank line may be put between these fields. This is also applicable between entries.

8) For each main field, special control commands are available. For the limitation on using these commands and how to use them, refer to the item pertaining to “Special control commands>” that will be described later.

Main Field >

The main field name defined in the configuration file corresponds to each WEB setting page. The relation between the WEB setting page and the field name is shown below.

Item No.	Main field name	WEB setting page	
1	[Version]	Use another purpose. (Control Configuration)	
2	[Camera-General]	Camera Settings	Basic
3	[Camera-FrameRate]		Frame Rate
4	[Camera-Alarm]		Alarm
5	[Camera-Recording]		Recording
6	[Camera-FTPclient]		FTP Recording
7	[Camera-Mail]		E-mail
8	[Camera-Sound]		Audio
9	[PanTilt-General]	PAN/TILT Settings	Basic
10	[PanTilt-Preset]		Preset
11	[PanTilt-AutoPatrol]		Auto Patrol
12	[Network-General]	Network Settings	Basic
13	[Network-BandwidthControl]		Bandwidth Control
14	[Network-DDNS]		DDNS
15	[Network-FTPserver]		FTP Server
16	[Multi-Screen-Display]	Multi-Screen Display Settings	Adding and Removing Cameras
17	[User-Info]	AdministratorFunctions	User Login Restriction
18	[Admin-UserFunctions]		User Operation Restriction
19	[Admin-T&D]		Time and Date
-	-		FW Update
-	-		Configuration
20	[Log-Condition]	Log Management	Browse and Deletion

Sub-field >

The sub-field corresponding to each main field also corresponds to the minor item of each WEB setting page.
The relation between the main field and sub-field name is shown below.

Item No.	Sub-field name	Main field	
-	-	[Version]	Control Configuration
-	-	[Camera-General]	Camera Settings
	-	[Camera-FrameRate]	
1	<AlarmType>	[Camera-Alarm]	
2	<MotionDetection>		
3	<HoldingOutTime>		
4	<Alarm>	[Camera-Recording]	
5	<Normal>		
6	<RecOverwriting>		
7	<FTPCondition>	[Camera-FTPclient]	(Camera Settings)
8	<Server-1>		
9	<Server-2>		
10	<AttachedPicture>		
11	<HowToUse>		
12	<bySchedule>		
13	<byAlarm>		
14	<byExtControlIn>		
15	<Accumulation>		
16	<Authentication>	[Camera-Mail]	
17	<ConditionByAlarmIn>		
18	<ConditionByMotion>		
19	<AttachSize>		
20	<Recipient>		
21	<MailTo-1>		
	……		
30	<MailTo-10>		

To the next page.

Form the last page.

Item No.	Sub-field name	Main field	
31	<Input>	[Camera-Sound]	
32	<Output>		
33	<PTCondition>	[PanTilt-General]	PAN/TILT Settings
34	<AssociationToAlarm>		
35	<LeftLimitSetting>		
36	<RightLimitSetting>		
37	<TopLimitSetting>		
38	<BottomLimitSetting>		
39	<PresetNumber-1>	[PanTilt-Preset]	
	……		
102	<PresetNumber-64>		
103	<StayTime>	[PanTilt-AutoPatrol]	
104	<AutoPatrolStopNumber>		
-	-	[Network-General]	Network Settings
-	-	[Network-BandwidthControl]	
-	-	[Network-DDNS]	
-	-	[Network-FTPserver]	
105	<DisplayMode>	[Multi-Screen-Display]	Multi-Screen Display Settings
106	<MyCameraInfo>		
107	<Camera-1>		
	……		
136	<Camera-30>		
-	-	[User-Info]	Administrator Functions
137	<FunctionRestriction>	[Admin-UserFunctions]	
138	<Function>		
139	<TimeZone>	[Admin-T&D]	
140	<NTP>		
141	<DaylighSaving>		
-	-	[Log-Condition]	Log Management

Entry and Value >

The entry that can be set in each sub-field has the same meaning as the entry of the wbset type cgi API.
In the following, the relation between the field/entry defined in “ikwb21conf.ini” and the wbset type cgi API is explained. For an example, “Camera setting -> Record” API wbsetcamrecord.cgi is mentioned.
wbset type cgi always has the following format.

wbsetcamrecord.cgi?type=Alarm
(1) (2)

At this time, the cgi name of (1) corresponds to the main field and the type attribute of (2) corresponds to the sub-field. As a result of referencing the explanation page of wbsetcamrecord. cgi to find entries that can be set at this type= Alarm, the format settable in “ikwb21conf.ini” is as follows:

[Camera-Recording]
<Alarm>
AlarmInRecMode (1)
MotionRecMode (2)
NumberOfPrePicture (0)
NumberOfPostPicture (1)
Interval (2)
...

That is, “ikwb21conf.ini” is configured by extending the format to be specified in
<*entry*>=<*value*>
by the API directly as *entry (value)* of data definition.

In the main field having no sub-field, the type attribute for that API is always type=Set.

The API name corresponding to each sub-field is shown below.

> Referencing the Input information mentioned in the explanation of the API permits easily knowing what entry can be specified in each field. Accordingly, the description of <*entry*> and <*value*> is omitted here.
> Or refer to “Configuration information format” in the specification.

(Supplement)
In the Version main field, one entry “Ver” can be defined. However, this “Ver” entry does not have the functional purpose to the camera.
Use the configuration information file uploaded to the camera as schema information.

<*entry*> of these <*entry*>=<*value*> can also be referred to from ***Appendix.B***.

Item No.	Mail field	Sub-field	API name
-	[Version]	-	-
1	[Camera-General]	-	wbsetcambasic.cgi?type=Set
2	[Camera-FrameRate]	-	wbsetcamframerate.cgi?type=Set
3	[Camera-Alarm]	<AlarmType>	wbsetcamalarm.cgi?type=AlarmType
4		<MotionDetection>	wbsetcamalarm.cgi?type=MotionDetection
5		<HoldingOutTime>	wbsetcamalarm.cgi?type=HoldingOutTime
6	[Camera-Recording]	<Alarm>	wbsetcamrecord.cgi?type=Alarm
7		<Normal>	wbsetcamrecord.cgi?type=Normal
8		<RecOverwriting>	wbsetcamrecord.cgi?type=RecOverwriting
9	[Camera-FTPclient]	<FTPCondition>	wbsetcamftprecord.cgi?type=Condition
10		<Server-1>	wbsetcamftprecord.cgi?type=Server-1
11		<Server-2>	wbsetcamftprecord.cgi?type=Server-2
12		<AttachedPicture>	wbsetcamftprecord.cgi?type=AttachedPicture
13		<HowToUse>	wbsetcamftprecord.cgi?type=HowToUse
14		<bySchedule>	wbsetcamftprecord.cgi?type=bySchedule
15		<byAlarm>	wbsetcamftprecord.cgi?type=byAlarm
16		<byExtControlIn>	wbsetcamftprecord.cgi?type=byExtControlIn
17		<Accumulation>	wbsetcamftprecord.cgi?type=Accumulation
18	[Camera-Mail]	<Authentication>	wbsetcammail.cgi?type=Authentication
19		<ConditionByAlarmIn>	wbsetcammail.cgi?type=ConditionByAlarmIn
20		<ConditionByMotion>	wbsetcammail.cgi?type=ConditionByMotion
21		<AttachSize>	wbsetcammail.cgi?type=AttachSize
22		<Recipient>	wbsetcammail.cgi?type=Recipient
23		<MailTo-1>	wbsetcammail.cgi?type=MailTo-1
		……	……
32		<MailTo-10>	wbsetcammail.cgi?type=MailTo-10
33	[Camera-Sound]	<Input>	wbsetcamsound.cgi?type=Input
34		<Output>	wbsetcamsound.cgi?type=Output

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Item No.	Mail field	Sub-field	API name
35	[PanTilt-General]	<PTCondition>	wbsetptgeneral.cgi?type=PTCondition
36		<AssociationToAlarm>	wbsetptgeneral.cgi?type=AssociationToAlarm
37		<LeftLimitSetting>	wbsetptgeneral.cgi?type=LeftLimitSetting
38		<RightLimitSetting>	wbsetptgeneral.cgi?type=RightLimitSetting
39		<TopLimitSetting>	wbsetptgeneral.cgi?type=TopLimitSetting
40		<BottomLimitSetting>	wbsetptgeneral.cgi?type=BottomLimitSetting
41	[PanTilt-Preset]	<PresetNumber-1>	wbsetptpreset.cgi?type=PresetNumber-1
		……	……
104		<PresetNumber-64>	wbsetptpreset.cgi?type=PresetNumber-64
105	[PanTilt-AutoPatrol]	<StayTime>	wbsetptautopatrol.cgi?type=StayTime
106		<AutoPatrolStopNumber>	wbsetptautopatrol.cgi?type=AutoPatrolStopNumber
107	[Network-General]	-	wbsetnwkbasic.cgi?type=Set
108	[Network-BandwidthControl]	-	wbsetnwkbandwidth.cgi?type=Set
109	[Network-DDNS]	-	wbsetnwkddns.cgi?type=Set
110	[Network-FTPserver]	-	wbsetnwkftpserver.cgi?type=Set
111	[Multi-Screen-Display]	<DisplayMode>	wbsetmultiscreen.cgi?type=DisplayMode
111		<MyCameraInfo>	wbsetmultiscreen.cgi?type=MyCameraInfo
112		<Camera-1>	wbsetmultiscreen.cgi?type=Camera-1
		.....	……
143		<Camera-30>	wbsetmultiscreen.cgi?type=Camera-30
144	[User-Info]	-	wbsetadminuserinfo?type=Set
145	[Admin-UserFunctions]	<FunctionRestriction>	wbsetadminuserfunctions?type=FunctionRestriction
146		<Function>	wbsetadminuserfunctions?type=Function
147	[Admin-T&D]	<TimeZone>	wbsetadminTaD?type=TimeZone
148		<NTP>	wbsetadminTaD?type=NTP
149		<DaylightSaving>	wbsetadminTaD?type=DaylightSaving
150	[Log-Condition]	-	wbsetlogconditions.cgi?type=Set

Special Control Commands >

For ikwb21conf.ini, 4 types of special control command are prepared.

1) –default

"-default" can be specified in any field other than the [Version] field and has a function to reset all the information specified in the main field to the factory-set status provided at delivery.
For example, the following is specified:

[Camera-General]
Resolution (3)
CompressionRatio (1)
-default
AEControl (-33)
……

In this case, "-default" has priority over every other <entry> (value) in the same field, so the information on [Camera-General] is reset to the factory-set status provided at delivery.
"-default" may be located in any position in the main field.

2) –noop

"-noop" can be specified in a field other than the [Version] field and has a function to invalidate all the information changes in the specified main field.
For example, the following is specified:

[Camera-General]
Resolution (3)
CompressionRatio (1)
-noop
AEControl (-33)
……

In this case, "-noop" has priority over every other <entry> (value) in the same field, so the information on [Camera-General] is not changed at all.

"-noop" may be located in any position in the main field.

3) –noboot
"-noboot" can be specified only in the [Version] field. It is defined as the default that "Configuration information import" reboots the camera after it is executed. This "-noboot" restricts this reboot.
For some types of camera setting information, some changes may not require rebooting the camera. Use this "-noboot" for such setting changes.

4) –reboot
"-reboot" can be specified only in the [Version] field. It is defined as the default that "Configuration information import" reboots the camera after it is executed. So, this "-reboot" does not have any other functional purpose than specifying reboot clearly.

Appendix.A Output of getstream.cgi

The distribution format by streaming has the following fixed format.

<HTTP Header>
<Image Data Division>
<Message Notification Division>

To distribute multiple image data, <Image Data Division> is executed repeatedly.
<Message Notification Division> notifies the client of the streaming execution status and termination status as a message.
The following is an explanation of how to distribute image data.

--- For normal termination ---

To distribute image data by streaming, it is output in the following fixed format.
The ***italic*** portion means a portion that changes as data.

HTTP/1.0 200 OK\r\n
Content-Type: multipart/x-mixed-replace;boundary=<*32byte-sync*>\r\n
\r\n
--<*32byte-sync*>\r\n
<<*image-fields*>>
--<*32byte-sync*>\r\n
<<*image-fields*>>
...
--<*32byte-sync*>\r\n
<<*image-fields*>>
--<*32byte-sync*>\r\n
Content-Length: 20\r\n
EndOf-getstream.cgi.

The above is used as the basic format and the contents of <<*image-fields*>> varies depending on whether it is voice data or image data as shown below:

= For JPEG data =
Content-Type: image/jpeg\r\n
Content-Length: <*image size*>\r\n
\r\n
<*JPEG image data*>\r\n

= For Audio data =
Content-Type: audio/wav\r\n
Content-Length: <*image size*>\r\n
\r\n
<*WAV image data*>\r\n

Each <*image fields*> and an output message from the streaming execution task are separated by a unique 32-byte synchronization ID based on each occasion which is called boundary.

Regarding the image data receiving status, it can be judged by enclosing in the boundary whether the data indicated in Length has been received. If Length does not match with the actual received image size, the image data in this boundary is regarded as incomplete data, so that an error is notified or the data is discarded, proceeding to receiving processing for the next image data.

--- For termination due to an error ---

If streaming cannot be started due to a parameter error, the data is output in the following fixed format.

HTTP/1.0 200 OK\r\n
Content-Type: multipart/x-mixed-replace;boundary=<*32byte-sync*>\r\n
\r\n
--<*32byte-sync*>\r\n
Content-Length: 20\r\n
<*stream msg*>\r\n
--<*32byte-sync*>\r\n
Content-Length: 20\r\n
EndOf-getstream.cgi.

As compared with the normal status, this status is characterized by the following two points:

- There is no <<*image fields*>>.
- The “stream” message (<*stream msg*>) is added together with the Length indicating line before the stream termination message of “EndOf-getstream.cgi”.

--- Contents of <*stream msg*> ---

<*stream msg*> is a message to be used to notify the client of a streaming execution result and its length is fixed to 20 bytes in every message. This is used not only to notify an error message but to notify a streaming forced termination status such as abort5/abort10.

“EndOf-getstream.cgi” is a part of <*stream msg*> and a message that is always output when streaming ends.

Next, the types of <*stream msg*> message and the output timing of these messages are described below.

Item No.	Message type	contents of message	Status	Note
1.	Normal-1 OUT (streaming exec task/abort exec task)	EndOf-getstream.cgi.	both normal and error	his message may always be output with the exception of abort10.
2.	Normal-2 OUT (streaming exec task)	Not Found.....	normal	The last data has been distributed at reproduced image stream distribution.
3.	Error-1 OUT (streaming exec task)	Parameter Error.....	error	An error has found in an input parameter to the stream.
4.	Error-2 OUT (streaming exec task)	unmatch auth info...	error	The ID/PW authentication information does not match. In the IK-WB21A. this error is not notified.
5.	Emergency Normal-1 OUT (streaming exec task)	Abort.....	normal	Stream distribution has been forcedly terminated by an abort5/10 request.

Appendix.B Output of wbgetallinfo.cgi

[Version]
Ver (RB0.50.000)

[Camera-General]
Resolution (3)
CompressionRatio (3)
AEControl (0)
Mounting (1)
FocusRange (1)
AFDetectionArea (2)
AutoBW (1)
WhiteBalance (1)
WBManualGainR (0)
WBManualGainB (0)
AWBOffsetYeCy (0)
AWBOffsetMgG (0)
AWBRange (1)
AutoGainControl (2)
SlowShutterMax (3)
BackLightCompensation (7)
Sharpness (2)
GainRY (0)
GainBY (0)
NoiseReduction (1)

[Camera-FrameRate]
Rate (1)

[Camera-Alarm]
<AlarmType>
Mode (1)
InputPolarity (1)
<MotionDetection>
Mode (1)
Sensitivity (1)
<HoldingOutTime>
Thursday (1)
Friday (1)
Saturday (1)
Sunday (1)
Pattern1Start (8)
Pattern1End (17)
Pattern2Start (8)
Pattern2End (17)
Interval (60)
<RecOverwriting>
Mode (1)

[Camera-FTPclient]
<FTPCondition>
Mode (1)
AlarmInMode (1)
MotionMode (1)
<Server-1>
Name ()
LoginID ()
Password ()
FTPcPortNumber (21)
FTPMode (1)
ConnectMode (1)
<Server-2>
Name ()
LoginID ()
Password ()
FTPcPortNumber (21)
FTPMode (1)
ConnectMode (1)
<AttachedPicture>
Size (2)
FileNameMode (1)
<HowToUse>
Detail (1)
<bySchedule>
Monday (1)
Tuesday (1)
Wednesday (1)
Thursday (1)
Friday (1)
Saturday (1)
Sunday (1)
Pattern1Start (8)
Pattern1End (17)
Pattern2Start (8)
Pattern2End (17)
Interval (1)
FileName ()
Server1Path ()
Server2Path ()
<byAlarm>
NumberOfPrePicture (10)
NumberOfPostPicture (10)
Interval (1)
AiFileName ()
MdFileName ()
Server1Path ()
Server2Path ()
<byExtControlIn>
Interval (60)
FileName ()
Server1Path ()
Server2Path ()
<Accumulation>
Mode (1)
Interval (60)
OverWriting (1)

[Camera-Mail]
<Authentication>
RecipientAddr ()
AlarmIn (1)
Motion (1)
<MailTo-4>
RecipientAddr ()
AlarmIn (1)
Motion (1)
<MailTo-5>
RecipientAddr ()
AlarmIn (1)
Motion (1)
<MailTo-6>
RecipientAddr ()
AlarmIn (1)
Motion (1)
<MailTo-7>
RecipientAddr ()
AlarmIn (1)
Motion (1)
<MailTo-8>
RecipientAddr ()
AlarmIn (1)
Motion (1)
<MailTo-9>
RecipientAddr ()
AlarmIn (1)
Motion (1)
<MailTo-10>
RecipientAddr ()
AlarmIn (1)
Motion (1)

[Camera-Sound]
<Input>
Mode (1)
Level (2)

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Degree (0)
<RightLimitSetting>
Mode (1)
Degree (7716)
<TopLimitSetting>
Mode (1)
Degree (0)
<BottomLimitSetting>
Mode (1)
Degree (2617)

[PanTilt-Preset]
<PresetNumber-1>
PresetName ()
PanPosition (32767)
TiltPosition (32767)
ZoomPosition (0)
Focus (0)
FocusType (0)
<PresetNumber-2>
PresetName ()
PanPosition (32767)
TiltPosition (32767)
ZoomPosition (0)
Focus (0)
FocusType (0)
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PresetName ()
PanPosition (32767)
TiltPosition (32767)
ZoomPosition (0)
Focus (0)
FocusType (0)
<PresetNumber-4>
PresetName ()
PanPosition (32767)
TiltPosition (32767)
ZoomPosition (0)
Focus (0)

<PresetNumber-7>
PresetName ()
PanPosition (32767)
TiltPosition (32767)
ZoomPosition (0)
Focus (0)
FocusType (0)
<PresetNumber-8>
PresetName ()
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TiltPosition (32767)
ZoomPosition (0)
Focus (0)
FocusType (0)
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TiltPosition (32767)
ZoomPosition (0)
Focus (0)
FocusType (0)
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TiltPosition (32767)
ZoomPosition (0)
Focus (0)
FocusType (0)
<PresetNumber-11>
PresetName ()
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ZoomPosition (0)
Focus (0)
FocusType (0)
<PresetNumber-12>
PresetName ()
PanPosition (32767)
TiltPosition (32767)

Focus (0)
FocusType (0)
<PresetNumber-15>
PresetName ()
PanPosition (32767)
TiltPosition (32767)
ZoomPosition (0)
Focus (0)
FocusType (0)
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PresetName ()
PanPosition (32767)
TiltPosition (32767)
ZoomPosition (0)
Focus (0)
FocusType (0)
<PresetNumber-17>
PresetName ()
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TiltPosition (32767)
ZoomPosition (0)
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FocusType (0)
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PresetName ()
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ZoomPosition (0)
Focus (0)
FocusType (0)
<PresetNumber-19>
PresetName ()
PanPosition (32767)
TiltPosition (32767)
ZoomPosition (0)
Focus (0)
FocusType (0)
<PresetNumber-20>
PresetName ()

TiltPosition (32767)
ZoomPosition (0)
Focus (0)
FocusType (0)
<PresetNumber-23>
PresetName ()
PanPosition (32767)
TiltPosition (32767)
ZoomPosition (0)
Focus (0)
FocusType (0)
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PresetName ()
PanPosition (32767)
TiltPosition (32767)
ZoomPosition (0)
Focus (0)
FocusType (0)
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PresetName ()
PanPosition (32767)
TiltPosition (32767)
ZoomPosition (0)
Focus (0)
FocusType (0)
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PresetName ()
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TiltPosition (32767)
ZoomPosition (0)
Focus (0)
FocusType (0)
<PresetNumber-27>
PresetName ()
PanPosition (32767)
TiltPosition (32767)
ZoomPosition (0)
Focus (0)
FocusType (0)

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PresetName ()	Focus (0)	PanPosition (32767)	FocusType (0)
PanPosition (32767)	FocusType (0)	TiltPosition (32767)	<PresetNumber-51>
TiltPosition (32767)	<PresetNumber-38>	ZoomPosition (0)	PresetName ()
ZoomPosition (0)	PresetName ()	Focus (0)	PanPosition (32767)
Focus (0)	PanPosition (32767)	FocusType (0)	TiltPosition (32767)
FocusType (0)	TiltPosition (32767)	<PresetNumber-46>	ZoomPosition (0)
<PresetNumber-31>	ZoomPosition (0)	PresetName ()	Focus (0)
PresetName ()	Focus (0)	PanPosition (32767)	FocusType (0)
PanPosition (32767)	FocusType (0)	TiltPosition (32767)	<PresetNumber-54>
TiltPosition (32767)	<PresetNumber-39>	ZoomPosition (0)	PresetName ()
ZoomPosition (0)	PresetName ()	Focus (0)	PanPosition (32767)
Focus (0)	PanPosition (32767)	FocusType (0)	TiltPosition (32767)
FocusType (0)	TiltPosition (32767)	<PresetNumber-47>	ZoomPosition (0)
<PresetNumber-32>	ZoomPosition (0)	PresetName ()	Focus (0)
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PanPosition (32767)	FocusType (0)	TiltPosition (32767)	<PresetNumber-55>
TiltPosition (32767)	<PresetNumber-40>	ZoomPosition (0)	PresetName ()
ZoomPosition (0)	PresetName ()	Focus (0)	PanPosition (32767)
Focus (0)	PanPosition (32767)	FocusType (0)	TiltPosition (32767)
FocusType (0)	TiltPosition (32767)	<PresetNumber-48>	ZoomPosition (0)
<PresetNumber-33>	ZoomPosition (0)	PresetName ()	Focus (0)
PresetName ()	Focus (0)	PanPosition (32767)	FocusType (0)
PanPosition (32767)	FocusType (0)	TiltPosition (32767)	<PresetNumber-56>
TiltPosition (32767)	<PresetNumber-41>	ZoomPosition (0)	PresetName ()
ZoomPosition (0)	PresetName ()	Focus (0)	PanPosition (32767)
Focus (0)	PanPosition (32767)	FocusType (0)	TiltPosition (32767)
FocusType (0)	TiltPosition (32767)	<PresetNumber-49>	ZoomPosition (0)
<PresetNumber-34>	ZoomPosition (0)	PresetName ()	Focus (0)
PresetName ()	Focus (0)	PanPosition (32767)	FocusType (0)
PanPosition (32767)	FocusType (0)	TiltPosition (32767)	<PresetNumber-57>
TiltPosition (32767)	<PresetNumber-42>	ZoomPosition (0)	PresetName ()
ZoomPosition (0)	PresetName ()	Focus (0)	PanPosition (32767)
Focus (0)	PanPosition (32767)	FocusType (0)	TiltPosition (32767)
FocusType (0)	TiltPosition (32767)	<PresetNumber-50>	ZoomPosition (0)
<PresetNumber-35>	ZoomPosition (0)	PresetName ()	Focus (0)
PresetName ()	Focus (0)	PanPosition (32767)	FocusType (0)
PanPosition (32767)	FocusType (0)	TiltPosition (32767)	<PresetNumber-58>
TiltPosition (32767)	<PresetNumber-43>	ZoomPosition (0)	PresetName ()
ZoomPosition (0)	PresetName ()	Focus (0)	PanPosition (32767)

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TiltPosition (32767)	PresetNumber-3 (1)	PresetNumber-56 (1)	<Camera-2>
ZoomPosition (0)	PresetNumber-4 (1)	PresetNumber-57 (1)	Name ()
Focus (0)	PresetNumber-5 (1)	PresetNumber-58 (1)	Addr ()
FocusType (0)	PresetNumber-6 (1)	PresetNumber-59 (1)	HTTPPortNumber (80)
<PresetNumber-61>	PresetNumber-7 (1)	PresetNumber-60 (1)	Kind (1)
PresetName ()	PresetNumber-22 (1)	PresetNumber-61 (1)	Selection (1)
PanPosition (32767)	PresetNumber-23 (1)		<Camera-3>
TiltPosition (32767)	PresetNumber-24 (1)	[Network-BandWidthControl]	HTTPPortNumber (80)
ZoomPosition (0)	PresetNumber-25 (1)	Mode (1)	Kind (1)
Focus (0)	PresetNumber-26 (1)	Numeric (100)	Selection (1)
FocusType (0)	PresetNumber-27 (1)	BandWidth (2)	<Camera-6>
<PresetNumber-62>	PresetNumber-28 (1)		Name ()
PresetName ()	PresetNumber-29 (1)	[Network-DDNS]	Addr ()
PanPosition (32767)	PresetNumber-30 (1)	Mode (1)	HTTPPortNumber (80)
TiltPosition (32767)	PresetNumber-31 (1)	Server (www.netcam.zaantek.net)	Kind (1)
ZoomPosition (0)	PresetNumber-32 (1)	UserID ()	Selection (1)
Focus (0)	PresetNumber-33 (1)	Password ()	<Camera-7>
FocusType (0)	PresetNumber-34 (1)		Name ()
<PresetNumber-63>	PresetNumber-35 (1)	[Network-FTPserver]	Addr ()
PresetName ()	PresetNumber-36 (1)	Mode (1)	HTTPPortNumber (80)
PanPosition (32767)	PresetNumber-37 (1)	LoginID (cm9vdA==)	Kind (1)
TiltPosition (32767)	PresetNumber-38 (1)	Password (aWt3Yg==)	Selection (1)
ZoomPosition (0)	PresetNumber-39 (1)	MaxConnection (1)	<Camera-8>
Focus (0)	PresetNumber-40 (1)		Name ()
FocusType (0)	PresetNumber-41 (1)	[Mulsti-Screen-Display]	Addr ()
<PresetNumber-64>	PresetNumber-42 (1)	<DisplayMode>	HTTPPortNumber (80)
PresetName ()	PresetNumber-43 (1)	Mode (1)	Kind (1)
PanPosition (32767)	PresetNumber-44 (1)	<MyCameraInfo>	Selection (1)
TiltPosition (32767)	PresetNumber-45 (1)	Name (nwcam21)	<Camera-9>
ZoomPosition (0)	PresetNumber-46 (1)	Addr (192.168.0.30)	Name ()
Focus (0)	PresetNumber-47 (1)	HTTPPortNumber (80)	Addr ()
FocusType (0)	PresetNumber-48 (1)	Kind (12)	HTTPPortNumber (80)
	PresetNumber-49 (1)	Selection (1)	Kind (1)
[PanTilt-AutoPatrol]	PresetNumber-50 (1)	<Camera-1>	Selection (1)
<StayTime>	PresetNumber-51 (1)	Name ()	<Camera-10>
StayTime (1)	PresetNumber-52 (1)	Addr ()	Name ()
<AutoPatrolStopNumber>	PresetNumber-53 (1)	HTTPPortNumber (80)	Addr ()
PresetNumber-1 (1)	PresetNumber-54 (1)	Kind (1)	HTTPPortNumber (80)
PresetNumber-2 (1)	PresetNumber-55 (1)	Selection (1)	Kind (1)

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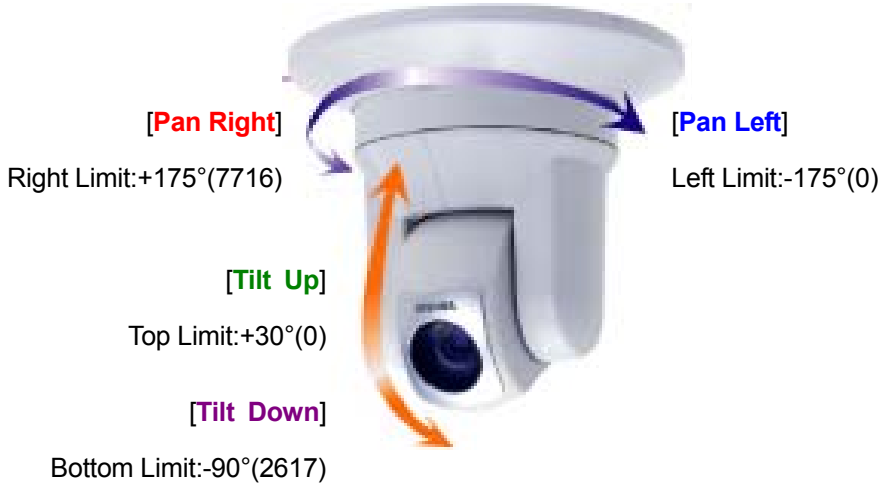
Selection (1)	Kind (1)	HTTPPortNumber (80)	
<Camera-11>	Selection (1)	Kind (1)	[Admin-T&D]
Name ()	<Camera-20>	Selection (1)	<TimeZone>
Addr ()	Name ()	<Camera-29>	Location (-8)
HTTPPortNumber (80)	Addr ()	Name ()	<NTP>
Kind (1)	HTTPPortNumber (80)	Addr ()	Mode (1)
Selection (1)	Kind (1)	HTTPPortNumber (80)	Server ()
<Camera-12>	Selection (1)	Kind (1)	AdjustingCycle (1)
HTTPPortNumber (80)	<Camera-21>	Selection (1)	<DaylightSaving>
Kind (1)	HTTPPortNumber (80)	<Camera-30>	Mode (1)
Selection (1)	Kind (1)	CompressionRatio (1)	
<Camera-15>	Selection (1)	AEControl (1)	[Log-Condition]
Name ()	<Camera-24>	Mounting (1)	Display (1)
Addr ()	Name ()	FocusRange (1)	Filter (1)
HTTPPortNumber (80)	Addr ()	AFDetectionArea (1)	Which (1)
Kind (1)	HTTPPortNumber (80)	AutoBW (1)	NumberOf (16)
Selection (1)	Kind (1)	WhiteBalance (1)	Keyword ()
<Camera-16>	Selection (1)	WBManualGain (1)	Year (5)
Name ()	<Camera-25>	AWBOffset (1)	Month (1)
Addr ()	Name ()	AWBRange (1)	Day (1)
HTTPPortNumber (80)	Addr ()	AutoGainControl (1)	Hour (0)
Kind (1)	HTTPPortNumber (80)	SlowShutterMax (1)	Minute (0)
Selection (1)	Kind (1)	FlickerCompensation (1)	Second (0)
<Camera-17>	Selection (1)	BackLightCompensation (1)	BcAd (1)
Name ()	<Camera-26>	Sharpness (1)	
Addr ()	Name ()	Gain (1)	
HTTPPortNumber (80)	Addr ()	NoiseReduction (1)	
Kind (1)	HTTPPortNumber (80)	Zoom (1)	
Selection (1)	Kind (1)	Focus (1)	
<Camera-18>	Selection (1)	Iris (1)	
Name ()	<Camera-27>	Audio (1)	
Addr ()	Name ()	PictureSaving (1)	
HTTPPortNumber (80)	Addr ()	PanTilt (1)	
Kind (1)	HTTPPortNumber (80)	AutoPatrol (1)	
Selection (1)	Kind (1)	Scan (1)	
<Camera-19>	Selection (1)	Preset (1)	
Name ()	<Camera-28>	PlayAlarm (1)	
Addr ()	Name ()	PlayNormal (1)	
HTTPPortNumber (80)	Addr ()	PlayControl (1)	

Appendix.C PAN/TILT direction and coordinate on “Ceiling Mount” / “Desktop Mount”

1. PAN/TILT when using “Ceiling Mount” installation method

1) Direction of PAN/TILT



2) Formula to get the approximate “Value” of PAN/TILT position.

Action	Formula	Range of “***n***”
Panning to ***n*** degree from the center	(***n***+175)x22	-175<=***n***<=+175
Tilting to ***n*** degree from the level	(-***n***+30)x22	-90<=***n***<=+30

Refer to Tables in 5) and 6) below

3) Formula to get approximate “Value” of Left/Right/Top/Bottom Limit Setting.

	Formula	Range of “***n***”
Left Limit	(***n***+175)x22	-175<=***n***<=+175
Right Limit	(***n***+175)x22	-175<=***n***<=+175
Top Limit	(-***n***+30)x22	-90<=***n***<=+30
Bottom Limit	(-***n***+30)x22	-90<=***n***<=+30

4) "Value" for "wbpantiltapi.cgi" when using "Ceiling Mount" option

	Value
Pan Left	wbpantiltapi.cgi?cont_2=1
Pan Right	wbpantiltapi.cgi?cont_2=2
Tilt Up	wbpantiltapi.cgi?cont_2=4
Tilt Down	wbpantiltapi.cgi?cont_2=8

5) Relation between PAN degree and value in API

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
Pan Left		-146	639	-116	1300	-86	1962	-56	2623	-26	3284
-175	0	-145	661	-115	1322	-85	1984	-55	2645	-25	3306
-174	22	-144	683	-114	1344	-84	2006	-54	2667	-24	3328
-173	44	-143	705	-113	1366	-83	2028	-53	2689	-23	3350
-172	66	-142	727	-112	1388	-82	2050	-52	2711	-22	3372
-171	88	-141	749	-111	1410	-81	2072	-51	2733	-21	3395
-170	110	-140	771	-110	1432	-80	2094	-50	2755	-20	3417
-169	132	-139	793	-109	1455	-79	2116	-49	2777	-19	3439
-168	154	-138	815	-108	1477	-78	2138	-48	2799	-18	3461
-167	176	-137	837	-107	1499	-77	2160	-47	2821	-17	3483
-166	198	-136	859	-106	1521	-76	2182	-46	2843	-16	3505
-165	220	-135	881	-105	1543	-75	2204	-45	2865	-15	3527
-164	242	-134	903	-104	1565	-74	2226	-44	2887	-14	3549
-163	264	-133	925	-103	1587	-73	2248	-43	2910	-13	3571
-162	286	-132	947	-102	1609	-72	2270	-42	2932	-12	3593
-161	308	-131	970	-101	1631	-71	2292	-41	2954	-11	3615
-160	330	-130	992	-100	1653	-70	2314	-40	2976	-10	3637
-159	352	-129	1014	-99	1675	-69	2336	-39	2998	-9	3659
-158	374	-128	1036	-98	1697	-68	2358	-38	3020	-8	3681
-157	396	-127	1058	-97	1719	-67	2380	-37	3042	-7	3703
-156	418	-126	1080	-96	1741	-66	2402	-36	3064	-6	3725
-155	440	-125	1102	-95	1763	-65	2425	-35	3086	-5	3747
-154	462	-124	1124	-94	1785	-64	2447	-34	3108	-4	3769
-153	485	-123	1146	-93	1807	-63	2469	-33	3130	-3	3791
-152	507	-122	1168	-92	1829	-62	2491	-32	3152	-2	3813
-151	529	-121	1190	-91	1851	-61	2513	-31	3174	-1	3835
-150	551	-120	1212	-90	1873	-60	2535	-30	3196	**Center**	
-149	573	-119	1234	-89	1895	-59	2557	-29	3218	0	3858
-148	595	-118	1256	-88	1917	-58	2579	-28	3240		
-147	617	-117	1278	-87	1940	-57	2601	-27	3262		

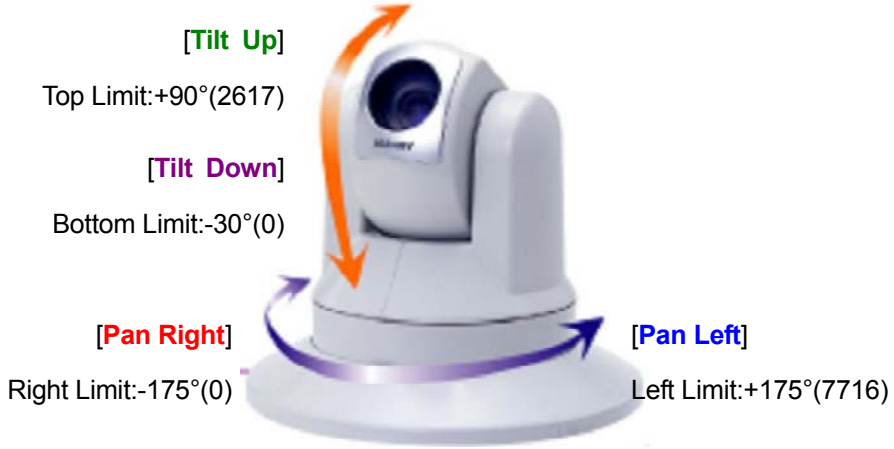
Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
Center		40	4739	82	5665	124	6591	166	7517
0	3858	41	4761	83	5687	125	6613	167	7539
Pan Right		42	4783	84	5709	126	6635	168	7561
1	3880	43	4805	85	5731	127	6657	169	7583
2	3902	44	4828	86	5753	128	6679	170	7605
3	3924	45	4850	87	5775	129	6701	171	7627
4	3946	46	4872	88	5798	130	6723	172	7649
5	3968	47	4894	89	5820	131	6745	173	7671
6	3990	48	4916	90	5842	132	6768	174	7693
7	4012	49	4938	91	5864	133	6790	175	7716
8	4034	50	4960	92	5886	134	6812		
9	4056	51	4982	93	5908	135	6834		
10	4078	52	5004	94	5930	136	6856		
11	4100	53	5026	95	5952	137	6878		
12	4122	54	5048	96	5974	138	6900		
13	4144	55	5070	97	5996	139	6922		
14	4166	56	5092	98	6018	140	6944		
15	4188	57	5114	99	6040	141	6966		
16	4210	58	5136	100	6062	142	6988		
17	4232	59	5158	101	6084	143	7010		
18	4254	60	5180	102	6106	144	7032		
19	4276	61	5202	103	6128	145	7054		
20	4298	62	5224	104	6150	146	7076		
21	4320	63	5246	105	6172	147	7098		
22	4343	64	5268	106	6194	148	7120		
23	4365	65	5290	107	6216	149	7142		
24	4387	66	5313	108	6238	150	7164		
25	4409	67	5335	109	6260	151	7186		
26	4431	68	5357	110	6283	152	7208		
27	4453	69	5379	111	6305	153	7230		
28	4475	70	5401	112	6327	154	7253		
29	4497	71	5423	113	6349	155	7275		
30	4519	72	5445	114	6371	156	7297		
31	4541	73	5467	115	6393	157	7319		
32	4563	74	5489	116	6415	158	7341		
33	4585	75	5511	117	6437	159	7363		
34	4607	76	5533	118	6459	160	7385		
35	4629	77	5555	119	6481	161	7407		
36	4651	78	5577	120	6503	162	7429		
37	4673	79	5599	121	6525	163	7451		
38	4695	80	5621	122	6547	164	7473		
39	4717	81	5643	123	6569	165	7495		

6) Relation between TILT degree and value in API

Degree	Value	Degree	Value	Degree	Value	Degree	Value
Tilt Up		**Tilt Down**		-33	1373	-66	2093
30	0	-1	676	-34	1395	-67	2115
29	21	-2	697	-35	1417	-68	2137
28	43	-3	719	-36	1439	-69	2159
27	65	-4	741	-37	1461	-70	2180
26	87	-5	763	-38	1482	-71	2202
25	109	-6	785	-39	1504	-72	2224
24	130	-7	806	-40	1526	-73	2246
23	152	-8	828	-41	1548	-74	2268
22	174	-9	850	-42	1570	-75	2289
21	196	-10	872	-43	1592	-76	2311
20	218	-11	894	-44	1613	-77	2333
19	239	-12	915	-45	1635	-78	2355
18	261	-13	937	-46	1657	-79	2377
17	283	-14	959	-47	1679	-80	2398
16	305	-15	981	-48	1701	-81	2420
15	327	-16	1003	-49	1722	-82	2442
14	348	-17	1024	-50	1744	-83	2464
13	370	-18	1046	-51	1766	-84	2486
12	392	-19	1068	-52	1788	-85	2507
11	414	-20	1090	-53	1810	-86	2529
10	436	-21	1112	-54	1831	-87	2551
9	457	-22	1134	-55	1853	-88	2573
8	479	-23	1155	-56	1875	-89	2595
7	501	-24	1177	-57	1897	-90	2617
6	523	-25	1199	-58	1919		
5	545	-26	1221	-59	1940		
4	567	-27	1243	-60	1962		
3	588	-28	1264	-61	1984		
2	610	-29	1286	-62	2006		
1	632	-30	1308	-63	2028		
Level		-31	1330	-64	2049		
0	654	-32	1352	-65	2071		

2. PAN/TILT when using “Desktop Mount” installation method

1) Direction of PAN/TILT



2) Formula to get the approximate “Value” of PAN/TILT position

Action	Formula	Range of “***n***”
Panning to ***n*** degree from the center	(***n***+175)x22	-175<=***n***<=+175
Tilting to ***n*** degree from the level	(***n***+30)x22	-30<=***n***<=+90

Refer to Tables in 5) and 6) below

3) Formula to get approximate “Value” of Left/Right/Top/Bottom Limit Setting

	Formula	Range of “***n***”
Left Limit	(***n***+175)x22	-175<=***n***<=+175
Right Limit	(***n***+175)x22	-175<=***n***<=+175
Top Limit	(***n***+30)x22	-30<=***n***<=+90
Bottom Limit	(***n***+30)x22	-30<=***n***<=+90

4) "Value" for "wbpantiltapi.cgi" when using "Desktop Mount" option

	Value
Pan Left	wbpantiltapi.cgi?cont_2=2
Pan Right	wbpantiltapi.cgi?cont_2=1
Tilt Up	wbpantiltapi.cgi?cont_2=8
Tilt Down	wbpantiltapi.cgi?cont_2=4

5) Relation between PAN degree and value in API

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
Pan	**Right**	-146	639	-116	1300	-86	1962	-56	2623	-26	3284
-175	0	-145	661	-115	1322	-85	1984	-55	2645	-25	3306
-174	22	-144	683	-114	1344	-84	2006	-54	2667	-24	3328
-173	44	-143	705	-113	1366	-83	2028	-53	2689	-23	3350
-172	66	-142	727	-112	1388	-82	2050	-52	2711	-22	3372
-171	88	-141	749	-111	1410	-81	2072	-51	2733	-21	3395
-170	110	-140	771	-110	1432	-80	2094	-50	2755	-20	3417
-169	132	-139	793	-109	1455	-79	2116	-49	2777	-19	3439
-168	154	-138	815	-108	1477	-78	2138	-48	2799	-18	3461
-167	176	-137	837	-107	1499	-77	2160	-47	2821	-17	3483
-166	198	-136	859	-106	1521	-76	2182	-46	2843	-16	3505
-165	220	-135	881	-105	1543	-75	2204	-45	2865	-15	3527
-164	242	-134	903	-104	1565	-74	2226	-44	2887	-14	3549
-163	264	-133	925	-103	1587	-73	2248	-43	2910	-13	3571
-162	286	-132	947	-102	1609	-72	2270	-42	2932	-12	3593
-161	308	-131	970	-101	1631	-71	2292	-41	2954	-11	3615
-160	330	-130	992	-100	1653	-70	2314	-40	2976	-10	3637
-159	352	-129	1014	-99	1675	-69	2336	-39	2998	-9	3659
-158	374	-128	1036	-98	1697	-68	2358	-38	3020	-8	3681
-157	396	-127	1058	-97	1719	-67	2380	-37	3042	-7	3703
-156	418	-126	1080	-96	1741	-66	2402	-36	3064	-6	3725
-155	440	-125	1102	-95	1763	-65	2425	-35	3086	-5	3747
-154	462	-124	1124	-94	1785	-64	2447	-34	3108	-4	3769
-153	485	-123	1146	-93	1807	-63	2469	-33	3130	-3	3791
-152	507	-122	1168	-92	1829	-62	2491	-32	3152	-2	3813
-151	529	-121	1190	-91	1851	-61	2513	-31	3174	-1	3835
-150	551	-120	1212	-90	1873	-60	2535	-30	3196	**Center**	
-149	573	-119	1234	-89	1895	-59	2557	-29	3218	0	3858
-148	595	-118	1256	-88	1917	-58	2579	-28	3240		
-147	617	-117	1278	-87	1940	-57	2601	-27	3262		

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
Center		40	4739	82	5665	124	6591	166	7517
0	3858	41	4761	83	5687	125	6613	167	7539
Pan Left		42	4783	84	5709	126	6635	168	7561
1	3880	43	4805	85	5731	127	6657	169	7583
2	3902	44	4828	86	5753	128	6679	170	7605
3	3924	45	4850	87	5775	129	6701	171	7627
4	3946	46	4872	88	5798	130	6723	172	7649
5	3968	47	4894	89	5820	131	6745	173	7671
6	3990	48	4916	90	5842	132	6768	174	7693
7	4012	49	4938	91	5864	133	6790	175	7716
8	4034	50	4960	92	5886	134	6812		
9	4056	51	4982	93	5908	135	6834		
10	4078	52	5004	94	5930	136	6856		
11	4100	53	5026	95	5952	137	6878		
12	4122	54	5048	96	5974	138	6900		
13	4144	55	5070	97	5996	139	6922		
14	4166	56	5092	98	6018	140	6944		
15	4188	57	5114	99	6040	141	6966		
16	4210	58	5136	100	6062	142	6988		
17	4232	59	5158	101	6084	143	7010		
18	4254	60	5180	102	6106	144	7032		
19	4276	61	5202	103	6128	145	7054		
20	4298	62	5224	104	6150	146	7076		
21	4320	63	5246	105	6172	147	7098		
22	4343	64	5268	106	6194	148	7120		
23	4365	65	5290	107	6216	149	7142		
24	4387	66	5313	108	6238	150	7164		
25	4409	67	5335	109	6260	151	7186		
26	4431	68	5357	110	6283	152	7208		
27	4453	69	5379	111	6305	153	7230		
28	4475	70	5401	112	6327	154	7253		
29	4497	71	5423	113	6349	155	7275		
30	4519	72	5445	114	6371	156	7297		
31	4541	73	5467	115	6393	157	7319		
32	4563	74	5489	116	6415	158	7341		
33	4585	75	5511	117	6437	159	7363		
34	4607	76	5533	118	6459	160	7385		
35	4629	77	5555	119	6481	161	7407		
36	4651	78	5577	120	6503	162	7429		
37	4673	79	5599	121	6525	163	7451		
38	4695	80	5621	122	6547	164	7473		
39	4717	81	5643	123	6569	165	7495		

6) Relation between TILT degree and value in API

Degree	Value	Degree	Value	Degree	Value	Degree	Value
Tilt	**Up**	58	1919	25	1199	**Tilt**	**Down**
90	2617	57	1897	24	1177	-1	632
89	2595	56	1875	23	1155	-2	610
88	2573	55	1853	22	1134	-3	588
87	2551	54	1831	21	1112	-4	567
86	2529	53	1810	20	1090	-5	545
85	2507	52	1788	19	1068	-6	523
84	2486	51	1766	18	1046	-7	501
83	2664	50	1744	17	1024	-8	479
82	2442	49	1722	16	1003	-9	457
81	2420	48	1701	15	981	-10	436
80	2398	47	1679	14	959	-11	414
79	2377	46	1657	13	937	-12	392
78	2355	45	1635	12	915	-13	370
77	2333	44	1613	11	894	-14	348
76	2344	43	1592	10	872	-15	327
75	2289	42	1570	9	850	-16	305
74	2268	41	1548	8	828	-17	283
73	2246	40	1526	7	906	-18	261
72	2224	39	1504	6	785	-19	239
71	2202	38	1482	5	763	-20	218
70	2180	37	1461	4	741	-21	194
69	2159	36	1439	3	719	-22	174
68	2137	35	1417	2	697	-23	152
67	2115	34	1395	1	676	-24	130
66	2093	33	1373	**Level**		-25	109
65	2071	32	1352	0	654	-26	87
64	2049	31	1330			-27	65
63	2028	20	1308			-28	43
62	2006	29	1286			-29	21
61	1984	28	1264			-30	0
60	1962	27	1243				
59	1940	26	1221				

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