

HTTP API
Vacron VIT 6Series

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Revision Record

Date	Revision Version	Session Number	Change Description
2013-25-Sept.	1.5		Add event notification over HTTP including motion detection and wire input alarm. For VIT v2.1.6 or later.
2013-18-Oct.	1.6		Add RTSP Port For VIT v2.1.10 or later.
2013-25-Oct.	1.7		Add Alarm Parameter For VIT v2.1.10 or later.

Video Stream and Syntax

- HTTP authentication method
Digest or Basic.
- Video Stream:
 - HTTP mainstream `http://<ipcam:http_port>/video0.m4v`
Response: HTTP multipart video frames
Example: <http://192.168.1.221/video0.m4v>
 - HTTP substream `http://<ipcam:http_port>/video1.m4v`
Example: <http://192.168.1.221/video1.m4v>
 - RTSP mainstream `rtsp://<ipcam>/video0.sdp`
Example: `rtsp://192.168.1.221/video0.sdp`
 - RTSP substream `rtsp://<ipcam>/video1.sdp`
Example: `rtsp://192.168.1.221/video1.sdp`
- Get snapshot:
 - Snapshot of mainstream:
Syntax: http://<ipcam:http_port>/ipcam/jpeg
Response: JPEG
Example: <http://192.168.1.221/ipcam/jpeg>
 - Snapshot of substream:
Syntax: http://<ipcam:http_port>/ipcam/jpegcif
Response: JPEG
Example: <http://192.168.1.221/ipcam/jpegcif>

Note: To get substream snapshot, please set [Video->Stream Type] to “Dual” and [Video-> Codec] to “Dual H.264”

Camera	<input type="text" value="IPCAM"/>
Stream Type	<input style="border: 2px solid red; border-radius: 15px;" type="text" value="Dual"/>
Codec	<input style="border: 2px solid red; border-radius: 15px;" type="text" value="Dual H.264"/>
Resolution	<input type="text" value="H264:1080,H264:CIF"/>

- Set Parameter

Syntax: http://<ipcam:http_port>/vb.htm?parameter=value

Response: OK parameter

Example: <http://192.168.1.221/vb.htm?wantype=1>
OK wantype

- Get Parameter value

Syntax: http://<ipcam:http_port>/vb.htm?parameter

Response: OK parameter=value

Example: <http://192.168.1.221/vb.htm?wantype>
OK wantype=1

- Set multi-parameters in a single request

Syntax: http://<ipcam:http_port>/vb.htm?prmt=value1&prmt=value2&prmt=value3...

Response: OK prmt1 OK prmt2 OK prmt3

Example:

<http://192.168.1.221/vb.htm?wantype=1&netip=10.10.10.1&netmask=255.255.0.0&gateway=10.10.1.254>
OK wantype OK netip OK netmask OK gateway

- Get multi-parameters value in a single request

Syntax: http://<ipcam:http_port>/vb.htm?prmt1&prmt2&prmt3...

Response: OK prmt1=value1 OK prmt2=value2 OK prmt3=value3

Example: <http://192.168.1.221/vb.htm?videocodec&videocodeccombo&videocodecres>
OK videocodec=0 OK videocodeccombo=0 OK videocodecres=3

- Event notification over HTTP including motion detection and wire input alarm.

Syntax: http://<ipcam:http_port>/event.cgi

Response: IPCam keeps sending continous HTTP multipart contents every 2 seconds.

Name	Value	Description
md	0: off 1: on	Event motion detection is triggered or not.
input1	0: off 1: on	Event input 1 is triggered or not.
input2	0: off 1: on	Event input 2 is triggered or not.

Example: <http://192.168.1.221/event.cgi>

Network

GUI Item	SDK Parameter	Value	Remark
WAN Type	wantype	1: Static IP 2: DHCP	
Hostname	dhcphostname		
MTU (DHCP)	mtu2		
IP Address	netip		
Subnet Mask	netmask		
Default gateway IP	gateway		
MTU (Static IP)	mtu1		
Primary DNS Server	dnsip		
Secondary DNS Server	dnsip2		

Video

GUI Item	SDK Parameter	Value	Remark
Camera	title	Upto 11 characters	
Stream Type	videocodec	0: Single 1: Dual 2: Tri_Stream	Refer to Resolution Combo table
Codec	videocodeccombo	Refer to Resolution Combo table	
Resolution	videocodecres	Refer to Resolution Combo table	
Stream 1			
Framerate	framerate1	1-30	If the value exceed the capacity of assigned resolution, that IPcam will set it to be "1".
Bit Rate	bitrate1	Unit: Kbps	
Max Bit Rate	maxbitrate1	Unit: Kbps	
Rate Control	ratecontrol1	1: VBR 2: CBR	
Date	datestampenable1	0: Disable 1: Enable	
Position	dateposition	0: Bottom Left 1: Bottom Right	
Format	dateformat	0: YYYY/MM/DD 1: MM/DD/YYYY 2: DD/MM/YYYY	
Time	timestampenable1	0: Disable 1: Enable	
Position	timeposition	0: Bottom Left 1: Bottom Right	
Format	timeformat	0: 12Hrs 1: 24Hrs	
Text	textenable1	0: Bottom Left 1: Bottom Right	
Position	textposition1	0: Top-Left 1: Top-Right	
Text Content	overlaytext1	Upto 20 characters	

Stream2			
Framerate	framerate2	1-30	
Bit Rate	bitrate2	Unit: Kbps	
Max Bit Rate	maxbitrate2	Unit: Kbps	
Rate Control	ratecontrol2	1: VBR 2: CBR	
Quality Factor	livequality	3-99	
Date	datestampenable2	0: Disable 1: Enable	
Time	timestampenable2	0: Disable 1: Enable	
Text	textenable2	0: Disable 1: Enable	
Position	textposition2	0: Top-Left 1: Top-Right	
Text Content	overlaytext2	Upto 20 characters	
Stream3			
Framerate	framerate3	1-30	
Bit Rate	bitrate3	Unit: Kbps	
Max Bit Rate	maxbitrate3	Unit: Kbps	
Rate Control	ratecontrol3	1: VBR 2: CBR	
Date	datestampenable3	0: Disable 1: Enable	
Time	timestampenable3	0: Disable 1: Enable	
Text	textenable3	0: Disable 1: Enable	
Position	textposition3	0: Top-Left 1: Top-Right	
Text Content	overlaytext3	Upto 20 characters	
Local Display Video	localdisplay	0: OFF 1: NTSC 2: PAL	
Mirror	mirctrl	0: OFF 1: HORIZONTAL 2: VERTICAL 3: ALL	

Resolution Combo:

1) Single Stream mode: [\[videocodec=0\]](#)

Codec	Selectable resolution
H.264 [videocodeccombo=0]	H264:720 - [videocodecres=0] H264:D1 - [videocodecres=1] H264:SXVGA - [videocodecres=2] *H264:1080 - [videocodecres=3] H264:720MAX60 - [videocodecres=4]
MPEG4 [videocodeccombo=1]	MPEG4:720 - [videocodecres=0] MPEG4:D1 - [videocodecres=1] MPEG4:SXVGA - [videocodecres=2] MPEG4:1080 - [videocodecres=3] MPEG4:720MAX60- [videocodecres=4]
MegaPixel [videocodeccombo=2]	H264:2MP - [videocodecres=0] JPG:2MP - [videocodecres=1] H264:3MP - [videocodecres=2] JPG:3MP - [videocodecres=3] H264:5MP - [videocodecres=4] JPG:5MP - [videocodecres=5]

Example: Set IPCam to be H264@1080P single stream –

[\[http://192.168.1.221/vb.htm?videocodec=0&videocodeccombo=0&videocodecres=3\]](http://192.168.1.221/vb.htm?videocodec=0&videocodeccombo=0&videocodecres=3)

2) Dual Streams mode: [\[videocodec=1\]](#)

Codec	Selectable resolution
H.264+JPEG [videocodeccombo=0]	H264:720 +JPEG:VGA - [videocodecres=0] H264:D1+JPEG:D1 - [videocodecres=1] H264:720+JPEG:720 - [videocodecres=2]
MPEG4+JPEG [videocodeccombo=1]	MPEG4:720 +JPEG:VGA - [videocodecres=0] MPEG4:D1+JPEG:D1 - [videocodecres=1] MPEG4:720+JPEG:720 - [videocodecres=2]
Dual H.264 [videocodeccombo=2]	H264:720+H264:QVGA - [videocodecres=0] H264:720+ H264:CIF - [videocodecres=1] H264:D1+H264:QVGA - [videocodecres=2] *H264:1080+H264:QVGA - [videocodecres=3] H264:1080 + H264 CIF - [videocodecres=4] H264:1080 + H264:VGA - [videocodecres=5]

Dual MPEG4 [videocodeccombo=3]	MPEG4:720+MPEG4:QVGA - [videocodecres=0] MPEG4:D1+MPEG4:D1 - [videocodecres=1] MPEG4:D1+MPEG4:QVGA - [videocodecres=2] MPEG4:1080+MPEG4:QVGA - [videocodecres=3]
H.264+MPEG4 [videocodeccombo=4]	H264:D1+MPEG4:D1 - [videocodecres=0]

Example: Set IPCam to be H264@ H264:1080+H264:QVGA Dual stream –

[<http://192.168.1.221/vb.htm?videocodec=1&videocodeccombo=2&videocodecres=3>]

3)Triple Streams mode: [videocodec=2]

Codec	Selectable resolution
Dual H264+JPEG [videocodeccombo=0]	*H264:720+JPEG:VGA+H264:QVGA [videocodecres=0]
Dual MPEG4+JPEG [videocodeccombo=1]	MPEG4:720+JPEG:VGA+MPEG4:QVGA [videocodecres=0]

Example: Set IPCam to be H264:720+JPEG:VGA+H264:QVGA Tri- stream –

[<http://192.168.1.221/vb.htm?videocodec=3&videocodeccombo=0&videocodecres=0>]

Camera

GUI Item	SDK Parameter	Value	Remark
Brightness	brightness	0-255	
Contrast	contrast	0-255	
Saturation	saturation	0-255	
Sharpness	sharpness	0-255	
Back Light Compensation	blc	0: OFF 1: ON	
Backlight	backlight	0: Min 1: Mid 2: Max	
Dynamic Range Enhancement	dynrange	0: None 1: Low Global 2: Medium Global 3: High Global 4: Low Local 5: Medium Local 6: High Local	
Flicker Control	flickerctrl	0: 60Hz 1: 50Hz	
Color Mode	colormode	0: Day 1: Auto 2: Night	
Video Stabilization	videostb	0: OFF 1: ON	
Lens Distortion Correction	lensdictcorrect	0: OFF 1: ON	
Image Sensor Mode	imgsensormode	0: BINNING 1: SKIPPING 2: WINDOW	
2A Engine	img2a	0: NONE 1: APPRO 2: TI	
2A Mode	img2atype	0: OFF 1: Auto Exposure 2: Auto White Balance 3: Auto Exposure + Auto Wite Balance	
Spatial Filter (SNF)	snfmode	0: OFF 1: ON	
Temporal Filter (TNF)	tnfmode	0: OFF 1: ON	

Audio

GUI Item	SDK Parameter	Value	Remark
Enable Audio	audioenable	0: Disable 1: Enable	
Audio Mode	audiomode	0: Only Mic(IPCam to PC/NVR) 1: Only Speaker 2: Both Mic & Speaker	
Input Gain	audioinvolume	0-100	
Encoding	audioencoding	0: G.711 1: AAC-LC	
Sample Rate	audiosamplerate	0: 8KHz 1: 16KHz	
Alarm Level	audioalarmlevel	0-100	
Output Level	audiooutvolume	0-100	

Date Time

GUI Item	SDK Parameter	Value		Remark
Synchrize with Time Servers	ntpenable	0: Disable 1: Enable		
SNTP Server	sntpip	FQDN or IP of NTP Server		
Time Zone	timezone	0: +0 60: +1 120: +2 180: +3 240: +4 300: +5 360: +6 420: +7 480: +8 540: +9 600: +10 660: +11 720: +12	-60: -1 -120: -2 -180: -3 -240: -4 -300: -5 -360: -6 -420: -7 -480: -8 -540: -9 -600: -10 -660: -11 -720: -12	+
	newdate	yyyy/mm/dd Example: 2012/07/04		Set Date/Time with assigned value to IPCam
	newtime	hh:mm:ss Example: 13:10:30		

Network Protocol

GUI Item	SDK Parameter	Value	Remark
HTTP Port	httpport	1-65535	
RTSP Port	rtspport	1-65535	
Sync With NVR	SyncWithNvr	0: Disable 1: Enable	If this option is set to be "0" that the IP Camera will not accept other HTTP API command anymore until you enable this option from web GUI.

Account

GUI Item	SDK Parameter	Value	Remark
Admin Username	adminid	Upto 30 characters	
Password	adminpwd	Upto 16 characters	
Operator username	operatorid	Upto 30 characters	
Password	operatorpwd	Upto 16 characters	
Viewer Username	viewerid	Upto 30 characters	
Password	viewerpwd	Upto 16 characters	

Restart

GUI Item	SDK Parameter		Remark
Restart	ipcamrestartcmd	Restart IPCam Please send this command later than 20 seconds after you send the last setting command.	

PTZ

GUI Item	SDK Parameter	Value	Remark
Protocol	ptzprotocol	0: OFF 1: PelcoP 2: PelcoD	
Device ID	ptzaddr	0-3	
Baud Rate	ptzbaud	0: 1200 1: 2400 2: 4800 3: 9600 4: 19200	
PTZ Speed	ptzspeed	0-23	
	ptzpreset=# ipncptz=14	# >= 1 (Location #)	Assign PTZ preset location
	ptzpreset=# ipncptz=17	# >= 1 (Location #)	Locate to a preset location.
	ptzpreset=# ipncptz=15	# >= 1 (Location #)	Clear a PTZ preset location
	ipncptz	16	Clear all preset location
	ipncptz	0: STOP 1: LEFT 2: RIGHT 3: UP 4: DOWN 5: IRISDEC 6: IRISINC 7: ZOOMDEC 8: ZOOMINC 9: FOCUSDEC 10: FOCUSINC 21: LEFT UP 22: LEFT DOWN 23: RIGHT UP 24: RIGHT DOWN	Move PTZ

Example:

Preset location #1 - <http://192.168.1.221/vb.htm?ptzpreset=1&ipncptz=14>

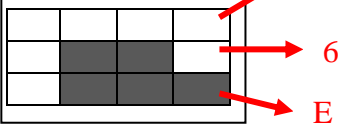
Locate to location #1 - <http://192.168.1.221/vb.htm?ptzpreset=1&ipncptz=17>

Clear preset location #1 - <http://192.168.1.221/vb.htm?ptzpreset=1&ipncptz=15>

Alarm

GUI Item	SDK Parameter	Value	Remark
Enable Alarm	alarmenable	0: Disable 1: Enable	
Alarm Duration	alarmduration	0: 10 1: 30 2: 60 3: 300 4: 600	
Ethernet Lost	lostalarm	0: Disable 1: Enable	
Audio Alarm	audioalarm	0: Disable 1: Enable	
External Triggers	extalarm	0: Disable 1: Enable	
Input1	exttrigger1input	0: Disable 1: Enable	
Input2	exttrigger2input	0: Disable 1: Enable	
Output1	exttrigger1output	0: Disable 1: Enable	
Output2	exttrigger2output	0: Disable 1: Enable	

Motion Detection

GUI Item	SDK Parameter	Value	Remark
Enable Alarm	alarmenable	0: Disable 1: Enable	
Motion Detection	motionenable	0: Disable 1: Enable	Enable Alarm is required.
(Sensitivity Mode – Radio Button)	motioncenable	0: Drop Down Menu 1: Customized Threshold	
Sensitivity	motionsensitivity	0: Low 1: Medium 2: High	
Customized Threshold	motioncvalue	0-100	
(Detecting Block)	motionblock	<p>It described in 3-digit Hex. The first digit is for first row of detecting area, and so on.</p> <p>0: □□□□ 1: ■□□□ 2: □■□□ 3: ■■□□ 4: □□■□ 5: ■□■□ 6: □■■□ 7: ■■■□ 8: □□■□ 9: ■□□■ A: □■■■ B: ■■■■ C: □□■■ D: ■□■■ E: □■■■ F: ■■■■</p> <p>Example: Detecting Block</p>  <p>Value: 06E</p>	