

AirLive
FE-501DM / FE-5010D /
FE-201DM

CGI Reference Manual

Version: 1.7

Date: 04/24/2015

TABLE OF CONTENTS

TABLE OF CONTENTS	2
REVISION HISTORY	5
CHAPTER 1 CGI COMMANDS.....	7
1.1 STREAM OF RTSP	7
1.2 USER_SECURITY.LUA	8
1.3 UPGRADE.CGI	9
1.4 REBOOT.LUA	10
1.5 RESTORE.LUA	11
1.6 HWRESTORE.LUA	12
1.7 SYSTEM.LUA	13
1.8 WIRELESS	18
1.8.1 WIRELESS_SETTING.CGI	18
1.8.2 WIRELESS_CONN.LUA	19
1.8.3 WIRELESS.LUA	24
1.9 FE.CGI	27
1.9.1 MOUNTING TYPE	27
1.9.2 DISPLAY MODE	28
1.9.2.1 CEILING MOUNT	28
1.9.2.2 WALL MOUNT	29
1.9.2.3 HI_FPS	30
1.9.3 QUERY INFORMATION OF IP CAM	31
1.9.4 QUERY PAN, TILT, ZOOM AND ROTATE INFORMATION	32
1.9.5 DIGITAL PAN, TILT, ZOOM AND ROTATE	33
1.9.5.1 CEILING MOUNT	33
1.9.5.2 WALL MOUNT	35
1.9.5.3 HI_FPS MOUNT	37
1.9.5.4 QUERY FE-INFORMATION OF IP CAM	39
1.9.6 SAVE, CHANGE AND DELETE THE EPTZ PRESENT POINT	40
1.9.6.1 SAVE	40
1.9.6.2 CHANGE	41
1.9.6.3 DELETE	42
1.9.6.4 AP.LUA	43
1.9.6.5 ROISTREAMING.LUA	44
1.10 AUDIO.PLAY	45
1.11 PARAM.CGI	46
1.11.1 MOTION DETECTION WINDOW	46

1.11.2	EVENT VIDEO.....	49
1.11.3	EVENT SNAPSHOT	52
1.11.4	EVENT VIDEO RECIPIENT.....	56
1.11.5	EVENT SNAPSHOT RECIPIENT	59
1.11.6	IMAGE SETTING.....	62
1.11.7	AUDIO SETTING.....	66
1.11.8	AUDIO OUT SETTING.....	68
1.11.9	NETWORK SETTING.....	68
1.11.10	RTSP SETTING.....	71
1.11.11	PRODUCT INFORMATION.....	74
1.11.12	DDNS.....	75
1.11.13	WIRELESS STATUS	77
1.11.14	STREAM SETTING	78
1.12	LEDSTATUS.LUA.....	83
1.13	EVENT_HANDLING.LUA	84
1.13.1	VIDEO	84
1.13.2	SNAPSHOT	88
1.14	SD.....	92
1.14.1	SD STATUS.....	92
1.14.2	RECORDING STATUS	94
1.14.3	SDVOLUME.LUA	95
1.15	PLAYBACK	96
1.15.1	VIDEO SEARCH	96
1.15.1.1	SEARCH IN DIRECTORY OF VIDEO	96
1.15.1.2	SEARCH IN DIRECTORY OF DATE.....	98
1.15.1.3	SEARCH IN DIRECTORY OF TIME	100
1.15.2	SNAPSHOT SEARCH.....	102
1.15.2.1	SEARCH IN DIRECTORY OF SNAPSHOT	102
1.15.2.2	SEARCH IN DIRECTORY OF DATE.....	104
1.15.2.3	SEARCH IN DIRECTORY OF TIME	106
1.15.3	REMOVE FILE	108
1.15.4	SMTP TEST CGI	111
1.15.4.1	NONE, STARTTLS	111
1.15.4.2	SSL-TLS	112
1.15.5	FTP TEST CGI	113
1.15.6	PRESNAPVIEW.LUA.....	114
1.15.7	SHOWLOG.LUA.....	114
1.15.8	SYSLOG.LUA	115
1.15.9	EVENTINFO.....	116
1.15.10	IPFILTER.LUA	117

1.15.11	MOUNT.LUA	119
1.15.12	GPIOSTATUS.CGI.....	121
CHAPTER 2	CGI OF GROUP.....	122

Revision History

Version	Release Date	Description
1.0	May.24 2013	Initial version
1.1	Aug.6 2013	Add event trigger for DI/DO
1.2	Oct.23 2013	Add roi_triple in display mode of fe.cgi Add showlog.lua and syslog.lua to get log message from IP-cam Modify video setting of param.cgi Modify uii to ui in video_search of vrecord.cgi Add Return Result in remove of vrecord.cgi Add eventinfo Modify wireless.lua,wireless_conn.lua Add ap.lua Add sdvolume.lua Add roistreaming.lua
1.3	2.11 2014	Query Fe-information of IP cam
1.4	Aug.22 2014	Add GPIO trigger in event snapshot and event video of param.cgi

		Add gpiostatus.cgi
1.5	Dec.30 2014	Add VQCB to <QT> Ordering chapter 1.11~
1.6	Apr.17 2014	Modified 2-way audio command from talking.cgi to audio.play
1.7	Apr. 24 2015	Modified when change to Hi-FPS mode , must to reboot camera.

This document is intended as a guide for application developers and describes how to use scripting in CGI Command of Network Camera or Server. The information is provided “as is” without warranty of any kind and is subject to change without notice. And also reserves the right to revise the content of this document at any time without prior notice.

Chapter 1 CGI Commands

This CGI Command document specifies the method of communication with the Network Camera or Server for controlling camera functions as well as for getting and setting internal parameter values, which helps the application integrators develop software applications more easily.

1.1 Stream of RTSP

Action	rtsp://<IP address>/<stream_session_name>	
Method	RTSP Protocol Ex: rtsp://192.168.1.100/live1.sdp	
Function	This function is used to get RTSP stream.	
Parameter	Value	Description
<stream_session_name>	<string>	The session name of stream

1.2 user_security.lua

Action	http://<IP address>/cgi-bin/admin/user_security.lua	
Format	plain text	
Method	POST Ex: /cgi-bin/admin/user_security.lua?action=add&group=vaoperator&user=ipcam&pass=1234	
Function	This function is used to post security settings.	
Parameter	Value	Description
action	add delete	add:create user delete:delete user
group	vaadmin vaoperator vaviewer	vaadmin:admin group vaoperator:operator group vaviewer:viewer group
user	<string>	username
pass	<string>	password
Return Result	<?xml version="1.0" encoding="ISO-8859-1"?> <root> <change_pass>0</change_pass> </root>	
Method	GET	
Function	This function is used to get security settings. Return the account of requested group Ex: /cgi-bin/admin/user_security.lua ?group=vaoperator	
Parameter	Value	Description
group	vaadmin vaoperator vaviewer	vaadmin:admin group vaoperator:operator group vaviewer:viewer group
Return Result	<root> <req_method>GET</req_method> <root_pass>username</root_pass> </root>	

1.3 upgrade.cgi

Action	http://<IP address>/cgi-bin/admin/upgrade.cgi
Format	html
Method	POST Ex: /cgi-bin/admin/upgrade.cgi
Function	This function is used to upgrade our root file system
Return Result	Return /admin/uptime.html to show timing bar

1.4 reboot.lua

Action	http://<IP address>/cgi-bin/admin/reboot.lua
Format	xml DOM
Method	GET/POST Ex: /cgi-bin/admin/reboot.lua
Function	This function is used to reboot system
Return Result	<?xml version="1.0" encoding="ISO-8859-1"?> <root> <reset_config>0</reset_config> </root>

1.5 restore.lua

Action	http://<IP address>/cgi-bin/admin/restore.lua
Format	xml DOM
Method	GET/POST Ex: /cgi-bin/admin/restore.lua
Function	This function is used to restore to our system default setting except network setting
Return Result	<?xml version="1.0" encoding="ISO-8859-1"?> <root> <reset_config>0</reset_config> </root>

1.6 hwrestore.lua

Action	http://<IP address>/cgi-bin/admin/hwrestore.lua
Format	xml DOM
Method	GET/POST Ex: /cgi-bin/admin/hwrestore.lua
Function	This function is used to restore to our system default setting include network setting
Return Result	<?xml version="1.0" encoding="ISO-8859-1"?> <root> <reset_config>0</reset_config> </root>

1.7 system.lua

Action	http://<IP address>/cgi-bin/admin/system.lua	
Format	xml DOM	
Method	POST Ex: /cgi-bin/admin/system.lua	
Function	This function is used to setup system settings	
Post String	<pre><?xml version="1.0" encoding="ISO-8859-1" ?> <root> <system> <host>MOZART330</host> <led>on</led> <timezone>CST-8</timezone> <daylightsaving>off</daylightsaving> <start_time>08-01-00-00-00</start_time> <end_time>10-01-00-00-00</end_time> <time_mode>ntp</time_mode> <set_time></set_time> <ntp_server_type>DNS</ntp_server_type> <ntp_server>time.stdtime.gov.tw</ntp_server > <update_interval>3600</update_interval> <ntp_fromDHCP>>false</ntp_fromDHCP> </system> </root></pre>	
Parameter	Value	Description
<host>	MOZART330	Default setting, do not change
<led>	on	Default setting, do not change
<timezone>	MHT-12 SST11 HST10 AKST9AKDT M3.2.0,M11.1.0 PST8PDT,M3.2.0,M11.1.0 MST7MDT,M3.2.0,M11.1.0 MST7	Time zone setting

	CST6CDT,M3.2.0,M11.1.0 EST5EDT,M3.2.0,M11.1.0 COT5 – AST4ADT – NST3:30NDT ART3ARST,M10.1.0/0,M3. 3.0/0 GST2 AZOT1AZOST,M3.5.0/0,M 10.5.0/1 WET0 CET-1CEST,M3.5.0,M10.5. 0/3 CET-1CEST,M3.5.0,M10.5. 0/3 EET-2EEST,M3.5.0/3,M10. 5.0/4 EET-2EEST,M3.5.0/0,M10. 5.0/3 IST-2 AST-3 AST-3ADT,J91/3,J274/4 IRST-3:30 GST-4 AFT-4:30 PKT-5 IST-5:30 NPT-5:45 NOVT-6 NOVST,M3.5.0,M10.5.0/3 MMT-6:30 ICT-7 CST-8 JST-9 CST-9:30 EST-10 MAGT-11MAGST,M3.5.0,M 10.5.0/3 FJT-12 TOT-13	
<daylightsaving	on/off	Enable/disable day light

>		saving
<start_time>	MM-ww-dd-hh-mm	Start time of day light saving MM:01~12 (month) ww:01~06 (week) dd:00~06 (day) hh:00~23 (hour) mm:00~59 (minute)
<end_time>	MM-ww-dd-hh-mm	End time of day light saving MM:01~12 (month) ww:01~06 (week) dd:00~06 (day) hh:00~23 (hour) mm:00~59 (minute)
<time_mode>	ntp keep manual	ntp:ntp mode keep:keep time manual>manual mode
<set_time>	MMddhhmmyyyy.ss	Set time manually MM:01~12 (month) dd:01~32 (day) hh:00~23 (hour) mm:00~59 (minute) yyyy:0000~9999 (year) ss:00~59 (seconds)
<ntp_server_type>	DNS	Default setting, do not change
<ntp_server>	time.stdtime.gov.tw	Ntp server host name
<update_interval>	3600	Default setting, do not change
<ntp_fromDHCP>	false	Default setting, do not change
>		
Function	This function is used to setup system settings	
Method	GET Ex: /cgi-bin/admin/system.lua	
Function	This function is used to get system settings	
Return Result	The xml content about system settings	
Note	Time zone: MHT-12: GMT-12:00 Eniwetok, Kwajalein	

SST11: GMT-11:00 Midway Island
 HST10: GMT-10:00 Hawaii
 AKST9AKDT,M3.2.0,M11.1.0: GMT-09:00 Alaska
 PST8PDT,M3.2.0,M11.1.0: GMT-08:00 Las Vegas, San Francisco, Vancouver
 MST7MDT,M3.2.0,M11.1.0: GMT-07:00 Mountain Time, Denver
 MST7: GMT-07:00 Arizona
 CST6CDT,M3.2.0,M11.1.0: GMT-06:00 Central America, Central Time, Mexico City, Saskatchewan
 EST5EDT,M3.2.0,M11.1.0: GMT-05:00 Eastern Time, New York, Toronto
 COT5: GMT-05:00 Bogota, Lima, Quito, Indiana
 AST4ADT: GMT-04:00 Atlantic Time(Canada), Caracas, La Paz, Santiago
 NST3:30NDT: GMT-03:30 Newfoundland
 ART3ARST,M10.1.0/0,M3.3.0/0: GMT-03:00 Brasilia, Buenos Aires, Georgetown, Greenland, Sao Paulo
 GST2: GMT-02:00 Mid-Atlantic
 AZOT1AZOST,M3.5.0/0,M10.5.0/1: GMT-01:00 Azores, Cape Verde Is.
 WET0: GMT Casablanca, Greenwich Mean Time:Dublin, Edinburgh, Lisbon, London
 CET-1CEST,M3.5.0,M10.5.0/3: GMT+01:00 Amsterdam, Berlin, Rome, Stockholm, Vienna, Madrid, Paris
 CET-1CEST,M3.5.0,M10.5.0/3: GMT+01:00 Warsaw, Budapest, Bern
 EEEET-2EEST,M3.5.0/3,M10.5.0/4: GMT+02:00 Athens, Helsinki, Istanbul, Riga
 EET-2EEST,M3.5.0/0,M10.5.0/3: GMT+02:00 Lebanon, Minsk
 IST-2: GMT+02:00 Israel
 AST-3: GMT+03:00 Baghdad, Kuwait, Riyadh, Nairobi
 AST-3ADT,J91/3,J274/4: GMT+03:00 Iraq
 IRST-3:30: GMT+03:30 Tehran
 GST-4: GMT+04:00 Moscow, St. Petersburg, Abu Dhabi, Muscat, Baku, Tbilisi, Yerevan
 AFT-4:30: GMT+04:30 Kabul
 PKT-5: GMT+05:00 Islamabad, Karachi, Tashkent

	<p>IST-5:30: GMT+05:30 Calcutta, Chennai, Mumbai, New Delhi</p> <p>NPT-5:45: GMT+05:45 Kathmandu</p> <p>NOVT-6NOVST,M3.5.0,M10.5.0/3: GMT+06:00 Ekaterinburg, Almaty, Astana, Dhaka, Sri Jayewardenepura</p> <p>MMT-6:30: GMT+06:30 Rangoon</p> <p>ICT-7: GMT+07:00 Bangkok, Hanoi, Jakarta, Novosibirsk</p> <p>CST-8: GMT+08:00 Beijing, Chongqing, Hong Kong, Kuala Lumpur, Singapore, Taipei, Krasnoyarsk</p> <p>JST-9: GMT+09:00 Osaka, Sapporo, Tokyo, Seoul</p> <p>CST-9:30: GMT+09:30 Adelaide, Darwin</p> <p>EST-10: GMT+10:00 Brisbane, Canberra, Melbourne, Sydney, Guam, Yakutsk</p> <p>MAGT-11MAGST,M3.5.0,M10.5.0/3: GMT+11:00 Solomon Is., New Caledonia Is., Vladivostok</p> <p>FJT-12: GMT+12:00 Magadan, Auckland, Wellington, Fiji, Kamchatka, Marshall Is.</p> <p>TOT-13: GMT+13:00 Nuku'alofa, Samoa</p>
--	--

1.8 wireless

1.8.1 wireless_setting.cgi

Action	http://<IP address>/cgi-bin/admin/wireless_setting.cgi	
Format	Text plain	
Method	GET Ex: /cgi-bin/admin/wireless_setting.cgi	
Function	This function is used to get wireless SSID	
Return Result	Wireless.AP.APNUM=10&Wireless.AP.W00=Bufflo-Test,Infrastructure,WPA2-PSK,94&Wireless.AP.W01=Wireless-airlive,Infrastructure,WPA2-PSK,87&Wireless.AP.W02=Sapido,Infrastructure,WPA2-PSK,68&Wireless.AP.W03=NeverGiveUp,Infrastructure,WPA2-PSK,100&Wireless.AP.W04=demo-site,Infrastructure,WEP,64&Wireless.AP.W05=SMC,Infrastructure,WEP,76&Wireless.AP.W06=HPE910.5B999D,Adhoc,NONE,65&Wireless.AP.W07=QE-TEST,Infrastructure,NONE,80&Wireless.AP.W08=DLINK-QC,Infrastructure,NONE,62&Wireless.AP.W09=dlink,Infrastructure,NONE,42	
Parameter	Value	Description
Wireless.AP.APNUM	<value>	Total number of SSID
Wireless.AP.Wxx	<SSID>,<Mode>,<Encryption>,<Strength>	SSID: SSID name Mode: operation mode Encryption: Encryption type Strength: signal strength

1.8.2 wireless_conn.lua

Action	http://<IP address>/cgi-bin/admin/wireless_conn.lua
Format	XML DOM
Method	POST Ex: /cgi-bin/admin/wireless_conn.lua
Function	This function is used to setup wireless connection
Post String	<pre> <root> <wireless> <Wireless_Connection>>true</Wireless_Connec tion> <IP_Mode>DHCP</IP_Mode> <WIRELESS_MAC>00:12:0e:ff:ec:5b</WIREL ESS_MAC> <WIRELESS_IP>0.0.0.0</WIRELESS_IP> <Netmask>0.0.0.0</Netmask> <Gateway>0.0.0.0</Gateway> <WIRELESS_IP_PRI>0.0.0.0</WIRELESS_IP_P RI> <Netmask_PRI>0.0.0.0</Netmask_PRI> <Gateway_PRI>0.0.0.0</Gateway_PRI> <Brower_IP>0.0.0.0</Brower_IP> <Brower_Conn>none</Brower_Conn> <Wireless_status>no</Wireless_status> <Wireless_Mode>infrastructure</Wireless_Mo de> <Operation_Mode>Auto</Operation_Mode> <SSID>Wireless-Airlive</SSID> <Security>wpa2-psk</Security> <Domain>FCC</Domain> <Channel>1</Channel> <Adhoc> <Mode>PASSIVE</Mode> <Passive> <Type>DEFAULT</Type> <Default>PD736_MAC</Default> <Any></Any> </Passive> </pre>

	<pre> </Adhoc> <wep> <WEP_Auth>Open</WEP_Auth> <WEP_Encryption>64</WEP_Encryption> <WEP_KeyType>HEX</WEP_KeyType> <WEP_SEL>1</WEP_SEL> <WEP_Key1>12345678</WEP_Key1> <WEP_Key2>12345678</WEP_Key2> <WEP_Key3>12345678</WEP_Key3> <WEP_Key4>12345678</WEP_Key4> </wep> <wpa> <Encryption>AES</Encryption> <Pre_Shared_Key>1260879777</Pre_Shared_Key> </wpa> </wireless> </root> </pre>	
Parameter	Value	Description
<Wireless_Connection>	true false	true: enable wireless false: disable wireless
<IP_Mode>	DHCP STATIC	DHCP: DHCP mode STATIC: static mode
<WIRELESS_MAC>	<string>	Wireless MAC
<WIRELESS_IP>	<string>	Wireless IP address
<Netmask>	<string>	Netmask
<Gateway>	<string>	Gateway
<WIRELESS_IP_PRI>	<string>	Pre-Wireless IP address
<Netmask_PRI>	<string>	Pre-Netmask
<Gateway_PRI>	<sting>	Pre-Gateway
<Brower_IP>	<sting>	User Browser IP

<Brower_Conn>	Wireless Wired	Wireless: Brower_IP is wireless Wired: Brower_IP is wired
<Wireless_status>	yes no	Wireless connection status
<Wireless_Mode>	infrastructure adhoc	infrastructure: infrastructure mode adhoc: adhoc mode
<Operation_Mode>	Auto 11g 11b	Auto: auto mode 11g: 802.11g mode 11b: 802.11b mode
<SSID>	<string>	SSID name
<Security>	none wep wpa-psk wpa2-psk	none: no encryption wep: wep encryption wpa-psk: wpa-psk encryption wpa2-psk: wpa2-psk encryption
<Domain>	FCC ETSI JP	Channel mode FCC: ch1~ch11 ETSI: ch1~ch13 JP: ch1~ch14
<Channel>	1~14	Channel number
<Mode>	PASSTIVE ACTIVE	PASSTIVE mode ACTIVE mode
<Type>	DEFAULT ANY	In PASSTIVE Mode DEFAULT:SSID is ModelName_MAC ANY: SSID is filled in by user
<Default>	ModelName_MAC	In PASSTIVE , Default Means DEFAULT SSID value
<Any>	<string>	In PASSTIVE ANY: SSID is filled in by user

<WEP_Auth>	Open Share	WEP authentication
<WEP_Encryption>	64 128	WEP encryption mode
<WEP_KeyType>	ASCII HEX	WEP key type
<WEP_SEL>	0,1,2,3	Select WEP key
<WEP_Key1>	<string>	WEP key1
<WEP_Key2>	<string>	WEP key2
<WEP_Key3>	<string>	WEP key3
<WEP_Key4>	<string>	WEP key4
<Encryption>	AES TKIP	WPA-PSK, WPA-PSK2 encryption mode
<Pre_Shared_Key>	<string>	WPA-PSK, WPA-PSK2 key

1.8.3 wireless.lua

Action	http://<IP address>/cgi-bin/admin/wireless.lua
Format	xml DOM
Method	GET Ex: /cgi-bin/admin/wireless.lua
Function	This function is used to get wireless settings
Return Result	<pre> <?xml version="1.0" encoding="ISO-8859-1"?> <root> <wireless> <Wireless_Connection>true</Wireless_Connec tion> <IP_Mode>DHCP</IP_Mode> <WIRELESS_MAC>00:12:0e:ff:ec:6e</WIRELE SS_MAC> <WIRELESS_IP>0.0.0.0</WIRELESS_IP> <Netmask>0.0.0.0</Netmask> <Gateway>0.0.0.0</Gateway> <WIRELESS_IP_PRI>0.0.0.0</WIRELESS_IP_P RI> <Netmask_PRI>0.0.0.0</Netmask_PRI> <Gateway_PRI>0.0.0.0</Gateway_PRI> <Brower_IP>0.0.0.0</Brower_IP> <Brower_Conn> none </Brower_Conn> <Wireless_status>no</Wireless_status> <Wireless_Mode>infrastructure</Wireless_Mo de> <Operation_Mode>Auto</Operation_Mode> <SSID>12345678</SSID> <Security>none</Security> <Domain>FCC</Domain> <Channel>1</Channel> <Adhoc> <Mode>PASSIVE</Mode> <Passive> <Type>DEFAULT</Type> <Default>PD736_MAC</Default> <Any></Any> </pre>

```
</Passive>
</Adhoc>
<wep>
  <WEP_Auth>OPEN</WEP_Auth>
  <WEP_Encryption>64</WEP_Encryption>
  <WEP_KeyType>HEX</WEP_KeyType>
  <WEP_SEL>1</WEP_SEL>
  <WEP_Key1>12345678</WEP_Key1>
  <WEP_Key2>12345678</WEP_Key2>
  <WEP_Key3>12345678</WEP_Key3>
  <WEP_Key4>12345678</WEP_Key4>
</wep>
<wpa>
  <Encryption>AES</Encryption>
  <Pre_Shared_Key>12345678</Pre_Shared_Key>
</wpa>
</wireless>
</root>
```


1.9 fe.cgi

1.9.1 Mounting type

Action	http://<IP address>/cgi-bin/admin/fe.cgi	
Format	plain text	
Method	GET Ex: /cgi-bin/admin/fe.cgi?action=mount_type&cmd=ceiling	
Function	This function is used to set mounting type. Return the mounting type of IP-cam	
Parameter	Value	Description
action	mount_type	Specify the mounting type
cmd	ceiling wall Hi_FPS	ceiling: mount on ceiling, default display mode is quad wall: mount on wall, default display mode is quad_source Hi_FPS: mount on wall with Hi_FPS image, default display mode is broad * When change to Hi-FPS mode , must to reboot camera.
Return Result	Ex: MountType=ceiling&DisplayMode=quad&PresetPoints =-1	

1.9.2 Display mode

1.9.2.1 Ceiling mount

Action	http://<IP address>/cgi-bin/admin/fe.cgi	
Format	plain text	
Method	GET Ex: /cgi-bin/admin/fe.cgi?action=display_mode&cmd=quad	
Function	This function is used to set display mode. Return the display mode of IP-cam	
Parameter	Value	Description
action	display_mode	Set display mode
cmd	quad quad_source double_broad original panorama triple roi_triple	quad: 360° quad view quad_source: 360° three PTZ view with source double_broad: 360° double broad view original: source image panorama: 360° broad view triple: 180 broad with two PTZ view roi_triple: region of interest with source
Return Result	Ex: MountType=ceiling&DisplayMode=quad&PresetPoints=2,3,5,7	

1.9.2.2 Wall mount

Action	http://<IP address>/cgi-bin/admin/fe.cgi	
Format	plain text	
Method	GET Ex: /cgi-bin/admin/fe.cgi?action=display_mode&cmd=quad_source	
Function	This function is used to set display mode. Return the display mode of IP-cam	
Parameter	Value	Description
action	display_mode	Set display mode
cmd	quad_source triple original panorama	quad_source: 360° three PTZ view with source triple: 180 broad with two PTZ view original: source image panorama: 360° broad view
Return Result	Ex: MountType=wall&DisplayMode=quad_source&PresetPoints=-1	

1.9.2.3 Hi_FPS

Action	http://<IP address>/cgi-bin/admin/fe.cgi	
Format	plain text	
Method	GET Ex: /cgi-bin/admin/fe.cgi?action=display_mode&cmd=double	
Function	This function is used to set display mode. Return the display mode of IP-cam	
Parameter	Value	Description
action	display_mode	Set display mode
cmd	broad double triple quad	broad = 180° broad view double=two 180° ePTZ view triple = 180° broad view with two ePTZ view quad = 360° quad view
Return Result	Ex: MountType= Hi_FPS &DisplayMode=double	

1.9.3 Query information of IP cam

Action	http://<IP address>/cgi-bin/admin/fe.cgi	
Format	plain text	
Method	GET Ex: /cgi-bin/admin/fe.cgi?action=query&cmd=camera_info	
Function	This function is used to query camera setup. Return the setup of IP-cam	
Parameter	Value	Description
action	query	Query information
cmd	camera_info	Camera setup information
Return Result	Ex: MountType=wall&DisplayMode=broad&PresetPoints=3,0,4,10,15	
MountType	Ceiling, wall, Hi_FPS	Current mounting type
DisplayMode	original,quad,quad_source,double_broad,triple,broad,double,double_source,panorama	Current display mode
PresetPoints	Saved preset points	All saved preset points, divided by comma, not necessary by order

1.9.4 Query pan, tilt, zoom and rotate information

Action	http://<IP address>/cgi-bin/admin/fe.cgi	
Format	plain text	
Method	GET Ex: /cgi-bin/admin/fe.cgi?action=query&cmd=ptz_info&ch=1	
Function	This function is used to query camera setup. Return the PTZ information of IP-cam	
Parameter	Value	Description
action	query	Query information
cmd	ptz_info	Query PTZ information
ch	Number of channel	Query the PTZ info. Range from 0~3
Return Result	Ex: Ch0=180,300,5,0	
Chx	<pan>,<tilt>,<zoom>, <Rotate>	Pan, Tilt, Zoom, Rotate value s divided by comma of specified channel

1.9.5 Digital Pan, Tilt, Zoom and Rotate

1.9.5.1 Ceiling mount

Action	http://<IP address>/cgi-bin/admin/fe.cgi	
Format	plain text	
Method	GET Ex: /cgi-bin/admin/fe.cgi? action=eptz&cmd=move&ch=0&pan=10&tilt=-1	
Function	This function is used to ptz. Return the PTZ information of IP-cam	
Parameter	Value	Description
action	eptz	PTZ function
cmd	move reset	move: eptz by pan, tilt, zoom and rotate reset: reset the ptz setting of given channel
ch	0, 1, 2, 3	Support channel in different display modes: quad: 0, 1, 2, 3 quad_source: 1, 2, 3 double_broad: 0, 1 triple: 1, 2 panorama: 0
pan	Pan offset	Support display modes: quad, quad_source, double_broad, triple, panorama. +pan: pan right -pan: pan left
tilt	Tilt offset	Support display modes: quad, quad_source, double_broad, triple, panorama. +tilt: tilt down -tilt: tilt up

zoom	Zoom offset	Support display modes: quad, quad_source, triple +zoom: zoom in -zoom: zoom out
rotate	Rotate offset	Support display modes: quad, quad_source, triple +rotate: rotate clockwise -rotate: rotate counter-clockwise
Return Result	Ex: Ch0=390,310,1,18	
Chx	<pan>,<tilt>,<zoom>, <rotate>	Pan, tilt, zoom, rotate value s divided by comma of specified channel

1.9.5.2 Wall mount

Action	http://<IP address>/cgi-bin/admin/fe.cgi	
Format	plain text	
Method	GET Ex: /cgi-bin/admin/fe.cgi? action=eptz&cmd=move&ch=0&pan=10&tilt=-1	
Function	This function is used to ptz. Return the PTZ information of IP-cam	
Parameter	Value	Description
action	eptz	PTZ function
cmd	move reset	move: eptz by pan, tilt, zoom and rotate reset: reset the ptz setting of given channel
ch	0, 1, 2, 3	Support channel in different display modes: quad_source: 1, 2, 3 triple:1,2
pan	Pan offset	Support display modes: quad_source, triple. +pan: pan right -pan: pan left
tilt	Tilt offset	Support display modes: quad_source, triple. panorama. +tilt: tilt down -tilt: tilt up
zoom	Zoom offset	Support display modes: quad_source, triple. +zoom: zoom in -zoom: zoom out
rotate	Rotate offset	Support display modes: quad_source, triple. +rotate: rotate clockwise -rotate: rotate

		counter-clockwise
Return Result	Ex: Ch0=390,310,1,18	
Chx	<pan>,<tilt>,<zoom>, <rotate>	Pan, tilt, zoom value s divided by comma of specified channel

1.9.5.3 Hi_FPS mount

Action	http://<IP address>/cgi-bin/admin/fe.cgi	
Format	plain text	
Method	GET Ex: /cgi-bin/admin/fe.cgi? action=eptz&cmd=move&ch=0&pan=10&tilt=-10&zoom=4&rotate=18	
Function	This function is used to ptz. Return the PTZ information of IP-cam	
Parameter	Value	Description
action	eptz	PTZ function
cmd	move reset	move: eptz by pan, tilt, zoom and rotate reset: reset the ptz setting of given channel
ch	0, 1	Support channel in different display modes: quad: 0,1, 2, 3 triple:1,2 double:0,1
pan	Pan offset	Support display modes: quad, triple, double. +pan: pan right -pan: pan left
tilt	Tilt offset	Support display modes: quad, triple, double. panorama. +tilt: tilt down -tilt: tilt up
zoom	Zoom offset	Support display modes: quad, triple, double. +zoom: zoom in -zoom: zoom out
rotate	Rotate offset	Support display modes: quad, triple, double.

		+rotate: rotate clockwise -rotate: rotate counter-clockwise
Return Result	Ex: Ch0=390,310,1,18	
Chx	<pan>,<tilt>,<zoom>,<rotate>	Pan, tilt, zoom value s divided by comma of specified channel

1.9.5.4 Query Fe-information of IP cam

Action	http://<IP address>/cgi-bin/ viewer/felayout_info.lua	
Format	plain text	
Method	GET Ex: /cgi-bin/ viewer/felayout_info.lua	
Function	This function is used to query Fe-camera information. Return the information of Fe-camera	
Post String	<pre> <root> <carmera_Mount>Ceiling,Wall,Hi_FPS</carmera_Mount> <Ceiling> <resolution>1920*1920,1920*1080,1600*1200,1280*1024,800*600,640*480</resolution> <fpsmax>15</fpsmax> <fisheyemode>original,panorama,double_broad,triple,quad,quad_source</fisheyemode> </Ceiling> <Wall> <resolution>1920*1920,1920*1080,1600*1200,1280*1024,800*600,640*480</resolution> <fpsmax>15</fpsmax> <fisheyemode>original,panorama,triple,quad_source</fisheyemode> </Wall> <Hi_FPS> <resolution>1600*1200,1440*1080,1280*1024,800*600,640*480,320*240</resolution> <fpsmax>25</fpsmax> <fisheyemode>broad,double,triple,quad</fisheyemode> </Hi_FPS> </root> </pre>	
Parameter	Value	Description
<carmera_Mount>	Ceiling,Wall,Hi_FPS	Camera support Fe-Mount
<resolution>	1920*1920,1920*1080,1600*1200,1280*1024,800*600,640*480, 320*240	Camera Mount support resolution
< fpsmax >	15,25	Camera Mount support MAX-FPS
< fisheyemode >	original,panorama,double_broad,triple,quad,quad_source	Camera Mount support displaymode

1.9.6 Save, Change and Delete the ePTZ present point

1.9.6.1 Save

Action	http://<IP address>/cgi-bin/admin/fe.cgi	
Format	plain text	
Method	GET Ex: /cgi-bin/admin/fe.cgi?action=eptz&cmd=save_preset&point=0	
Function	This function is used to save the ePTZ settings of all channels in a mode. Return the setup of IP-cam	
Parameter	Value	Description
action	eptz	Query information
cmd	save_preset	save_preset: save the current ePTZ setting (all channels) and return all saved preset points.
point	0~3	We now support 4 preset points in a mounting type.
Return Result	Ex: PresetPoints=0	
PresetPoints	Saved preset points	All saved preset points, divided by comma, not necessary by order

1.9.6.2 Change

Action	http://<IP address>/cgi-bin/admin/fe.cgi	
Format	plain text	
Method	GET Ex: /cgi-bin/admin/fe.cgi?action=eptz&cmd=go_preset&point=0	
Function	This function is used to change the ePTZ settings of all channels in a mode. Return the setup of IP-cam	
Parameter	Value	Description
action	eptz	Query information
cmd	go_preset	go_preset: change the ePTZ setting, and return PTZ settings of all channels.
point	0~3	We now support 4 preset points in a mounting type.
Return Result	Ex: PresetPoints=0&Ch0=180,240,2,0&Ch1=90,200,1,0&Ch2=270,100,7,0&Ch3=45,150,1,0	
PresetPoints	Saved preset points	All saved preset points, divided by comma, not necessary by order

1.9.6.3 Delete

Action	http://<IP address>/cgi-bin/admin/fe.cgi	
Format	plain text	
Method	GET Ex: /cgi-bin/admin/fe.cgi?action=eptz&cmd=delete_preset&point=0	
Function	This function is used to delete the ePTZ settings of all channels in a mode. Return the setup of IP-cam	
Parameter	Value	Description
action	eptz	Query information
cmd	delete_preset	delete_preset: delete the ePTZ setting and return all saved preset points.
point	0~3	We now support 4 preset points in a mounting type.
Return Result	Ex: PresetPoints=0	
PresetPoints	Saved preset points	All saved preset points, divided by comma, not necessary by order

1.9.6.4 ap.lua

Action	http://<IP address>/cgi-bin/admin/ap.lua	
Format	plain text	
Method	POST Ex: /cgi-bin/admin/ap.lua	
Function	This function is used to post auto patrol settings.	
Post String	<pre><?xml version="1.0" encoding="ISO-8859-1"?> <root> <PTZ_Patrol> <Enable>off</Enable> <Time>2</Time> </PTZ_Patrol> </root></pre>	
Parameter	Value	Description
<Enable>	On/off	Turn on/off auto patrol
<Time>	2-9	auto patrol speed (2-9 sec)
Function	This function is used to get auto patrol settings.	
Method	GET Ex: /cgi-bin/admin/ap.lua	
Return Result	<pre><?xml version="1.0" encoding="ISO-8859-1"?> <root> <PTZ_Patrol> <Enable>on</Enable> <Time>4</Time> </PTZ_Patrol> </root></pre>	

1.9.6.5 roistreaming.lua

Action	http://<IP address>/cgi-bin/viewer/roistreaming.lua	
Format	plain text	
Method	POST Ex: /cgi-bin/viewer/roistreaming.lua	
Function	This function is used to change to rtsp roistreaming.	
Post String	<pre><?xml version="1.0" standalone="yes"?> <root> <roi_streaming> <roi>on</roi> <!-- on/off --> <fe_mount>ceiling</fe_mount><!--ceiling hifps-> <fe_mode>quad_source</fe_mode><!--double triple quad--> </roi_streaming> </root></pre>	
Parameter	Value	Description
< roi >	on/off	Turn on/off roi streaming
< fe_mount >	ceiling , wall, hifps	Now Fe_mount type
<fe_mode>	double, triple, quad, panorama, roi_triple, quad_source	Now Fe_mode type
Return Result	The XML DOM of roistreaming information	

1.10 audio.play

Action	http://<IP address>/audio.play
Format	html
Method	POST Ex: /audio.play
Function	This function is used to talk from PC to IP cam
<p>Note : the audio data is the following format</p> <p>Content-Length: 0</p> <p>Content-Type: audio/x-ulaw</p> <p><G711 ulaw 8k 16bit raw data></p> <p><G711 ulaw 8k 16bit raw data></p> <p><G711 ulaw 8k 16bit raw data></p> <p><G711 ulaw 8k 16bit raw data></p> <p><G711 ulaw 8k 16bit raw data></p> <p>...</p>	

1.11 Param.cgiMotion Detection Window

Action	http://<IP address>/cgi-bin/admin/param.cgi	
Format	XML DOM	
Method	POST Ex: /cgi-bin/admin/param.cgi?action=update&Motion Detection	
Function	This function is used to list motion detection window information. Return the motion detection window information	
action	update	update motion detection window
MotionDetection		update motion detection window
Function	This function is used to update motion detection window.	
Post String	<pre> <root> <MotionDetection> <Enable>on</Enable> <W00> <Active>on</Active> <Name>Default00</Name> <Left>12</Left> <Top>16</Top> <Width>283</Width> <Height>195</Height> <Sensitivity>85</Sensitivity> <Objsize>85</Objsize> </W00> <W01> <Active>off</Active> <Name>Window2</Name> <Left>280</Left> <Top>210</Top> <Width>40</Width> <Height>30</Height> <Sensitivity>75</Sensitivity> <Objsize>15</Objsize> </pre>	

```
</W01>
<W02>
  <Active>off</Active>
  <Name>Window3</Name>
  <Left>120</Left>
  <Top>100</Top>
  <Width>40</Width>
  <Height>30</Height>
  <Sensitivity>80</Sensitivity>
  <Objsize>20</Objsize>
</W02>
<W03>
  <Active>off</Active>
  <Name>Window3</Name>
  <Left>120</Left>
  <Top>100</Top>
  <Width>40</Width>
  <Height>30</Height>
  <Sensitivity>80</Sensitivity>
  <Objsize>20</Objsize>
</W03>
<W04>
  <Active>off</Active>
  <Name>Window3</Name>
  <Left>120</Left>
  <Top>100</Top>
  <Width>40</Width>
  <Height>30</Height>
  <Sensitivity>80</Sensitivity>
  <Objsize>20</Objsize>
</W04>
<W05>
  <Active>off</Active>
  <Name>Window1</Name>
  <Left>0</Left>
  <Top>0</Top>
  <Width>160</Width>
  <Height>120</Height>
  <Sensitivity>70</Sensitivity>
  <Objsize>10</Objsize>
```

```
</W05>
<W06>
  <Active>off</Active>
  <Name>Window2</Name>
  <Left>280</Left>
  <Top>210</Top>
  <Width>40</Width>
  <Height>30</Height>
  <Sensitivity>75</Sensitivity>
  <Objsize>15</Objsize>
</W06>
<W07>
  <Active>off</Active>
  <Name>Window3</Name>
  <Left>120</Left>
  <Top>100</Top>
  <Width>40</Width>
  <Height>30</Height>
  <Sensitivity>80</Sensitivity>
  <Objsize>20</Objsize>
</W07>
<W08>
  <Active>off</Active>
  <Name>Window3</Name>
  <Left>120</Left>
  <Top>100</Top>
  <Width>40</Width>
  <Height>30</Height>
  <Sensitivity>80</Sensitivity>
  <Objsize>20</Objsize>
</W08>
<W09>
  <Active>off</Active>
  <Name>Window3</Name>
  <Left>120</Left>
  <Top>100</Top>
  <Width>40</Width>
  <Height>30</Height>
  <Sensitivity>80</Sensitivity>
  <Objsize>20</Objsize>
```

	<pre> </W09> </MotionDetection> </root> </pre>	
Parameter	Value	Description
<Enable>	on off	on: enable motion detection off: disable motion detection
<W0X>		The Xth window
<Name>	<string>	Name of windowX
<Left>	0~320	The coordinate for the left boundary of motion detection window
<Top>	0~240	The coordinate for the upper boundary of motion detection window
<Width>	0~320	The width of motion detection window
<Height>	0~240	The height of motion detection window
<Sensitivity>	0~100	The sensitivity of motion trigger
<Objsize>	0~100	The object size of motion trigger
Method	GET Ex: /cgi-bin/admin/param.cgi?action=list&MotionDetection	
Parameter	Value	Description
action	list	List motion detection window information
Function	This function is used to list motion detection window information. Return the motion detection window information	
Return Result	The XML DOM of motion detection window information	

1.11.2 Event Video

Action	http://<IP address>/cgi-bin/admin/param.cgi	
Format	XML DOM	
Method	POST Ex: /cgi-bin/admin/param.cgi?action=update&EvtVideo	
Function	This function is used to setup event video information.	
Parameter	Value	Description
action	update	setup event video information
EvtVideo		setup event video information
Post String	<pre> <root> <EvtVideo> <Enable>on</Enable> <PreRecording>5</PreRecording> <Duration>10</Duration> <Delay>10</Delay> <DuringOnly>on</DuringOnly> <Trigger> <Type>MOTION</Type> <Interval>3</Interval> </Trigger> <Schedule> <Day>0,1,2,3,4,5,6</Day> <StartTime>0:0</StartTime> <EndTime>24:0</EndTime> </Schedule> <GPIO> <Trigger>positive</Trigger> <DO1> <Enable>off</Enable> <Duration>1</Duration> </DO1> <DO2> <Enable>off</Enable> </pre>	

	<pre> <Duration>1</Duration> </DO2> </GPIO> </EvtVideo> <root> </pre>	
Parameter	Value	Description
<Enable>	on off	on: enable event video recording off: disable event video recording
<PreRecording>	<value>	The duration of prerecording
<Duration>	<value>	The duration of event recording <Type>=MOTION: 5,6,7,8,9,10 <Type>=SCH: 60,120,180,240,300 <Type>=PERIOD: 5,6,7,8,9,10
<Delay>	5,10,20,30,40,50,60,70,80,90,100,110,120,130,140,150,160,170,180	The duration between events Only use in <Type>=PERIOD
<DuringOnly>	on off	Enable/disable event video in specified day
<Type>	PERIOD SCH MOTION PIR GPIO	PERIOD: periodic event recording SCH: schedule event recording MOTION: motion trigger event recording PIR: PIR trigger, only applied to PIR model GPIO: DI trigger
<Interval>	3	Not used, use default
<Day>	0,1,2,3,4,5,6	The day for event recording
<StartTime>	hh:mm	The start time of a day

		for event recording
<EndTime>	hh:mm	The end time of a day for event recording
<Trigger>	positive negative both	DI trigger method positive: low to high negative: high to low both: state change
<Enable>	on off	Enable/Disable DO on: enable DO off: disable DO
<Duration>	1~86400	Active duration of DO
Method	GET Ex: /cgi-bin/admin/param.cgi?action=list&EvtdVideo	
Function	This function is used to list event video information.	
Return Result	The XML DOM of event video information	

1.11.3 Event Snapshot

Action	http://<IP address>/cgi-bin/admin/param.cgi	
Format	XML DOM	
Method	POST Ex: /cgi-bin/admin/param.cgi?action=update&EvtdSnapshot	
Function	This function is used to setup event snapshot information.	
Parameter	Value	Description
action	update	setup event snapshot information
EvtdSnapshot		setup event snapshot information
Post String	<root> <EvtdSnapshot> <Enable>on</Enable>	

	<pre> <Duringonly>on</Duringonly> <Trigger> <Type>MOTION</Type> <Interval>3</Interval> <Wait>6</Wait> </Trigger> <Alarm> <Type>continue</Type> <Pre>3</Pre> <Post>3</Post> <Interval>1</Interval> </Alarm> <Schedule> <Day>0,1,2,3,4,5,6</Day> <StartTime>0:0</StartTime> <EndTime>24:0</EndTime> </Schedule> <GPIO> <Trigger>positive</Trigger> <DO1> <Enable>off</Enable> <Duration>1</Duration> </DO1> <DO2> <Enable>off</Enable> <Duration>1</Duration> </DO2> </GPIO> </EvtSnapshot> <root> </pre>	
Parameter	Value	Description
<Enable>	on off	on: enable event snapshot off: disable event snapshot
<PreRecording>	<value>	The duration of prerecording
<DuringOnly>	on off	Enable/disable event snapshot in specified day

<Type>	ALWAYS SCH MOTION PIR GPIO	ALWAYS: always event snapshot SCH: schedule event snapshot MOTION: motion trigger event snapshot PIR: PIR trigger, only applied to PIR model GPIO: DI trigger
<Interval>	<value>	The interval between event snapshot, the minimum is 3
<Wait>	6	Not used, use default
<Type> of <Alarm>	single continue	Single: single snapshot Continue: continuous sanpshpt Single snapshot is only applied to motion trigger
<Pre>	3	The number of pre event snapshot, for continuous snapshot
<Post>	3	The number of post event snapshot, for continuous snapshot
<Interval> of <Alarm>	1,2	The interval between continuous snapshot
<Day>	0,1,2,3,4,5,6	The day for event snapshot
<StartTime>	hh:mm	The start time of a day for event snapshot
<EndTime>	hh:mm	The end time of a day for event snapshot
<Trigger>	positive negative both	DI trigger method positive: low to high negative: high to low both: state change
<Enable>	on off	Enable/Disable DO on: enable DO

		off: disable DO
<Duration>	1~86400	Active duration of DO
Method	GET Ex: /cgi-bin/admin/param.cgi?action=list&EvtdSnapshot	
Function	This function is used to list event snapshot information.	
Return Result	The XML DOM of event snapshot information	

1.11.4 Event Video Recipient

Action	http://<IP address>/cgi-bin/admin/param.cgi	
Format	XML DOM	
Method	POST Ex: /cgi-bin/admin/param.cgi?action=update&VideoEvtRcpt	
Function	This function is used to setup recipient of event video	
Parameter	Value	Description
action	update	setup event video recipient
VideoEvtRcpt		setup event video recipient
Post String	<pre> <root> <VideoEvtRcpt> <FTP> <Enable>0</Enable> <Server>192.168.1.1</Server> <Port>21</Port> <User>guest</User> <Password>guest</Password> <Path>\ftp\upload</Path> <Prefix>event</Prefix> <Interval>30</Interval> </FTP> <SMTP> <Enable>0</Enable> <Server>192.168.1.1</Server> <Port>25</Port> <User>guest</User> <Password>guest</Password> <MailTo>rcpt@mail.com</MailTo> <MailFrom>from@mail.com</MailFrom> <Encrypt>0</Encrypt> </SMTP> <SD> <Enable>1</Enable> </pre>	

	</SD> </VideoEvtRcpt> <root>	
Parameter	Value	Description
<Enable> of <FTP>	0,1	0: enable event video recipient of FTP 1: disable event video recipient of FTP Disable in period event video, one of FTP and SMTP can be enabled
<Server> of <FTP>	<server ip>	FTP server IP
<Port> of <FTP>	<port number>	FTP server port number
<User> of <FTP>	<string>	username
<Password> of <FTP>	<string>	password
<Path>	<string>	Upload path
<Prefix>	<string>	Prefix name of file
<Interval>	30	Not used, use default
<Enable> of <SMTP>	0,1	0: enable event video recipient of SMTP 1: disable event video recipient of SMTP Disable in period event video, one of FTP and SMTP can be enabled
<Server> of <SMTP>	<server ip>	SMTP server IP
<Port> of <SMTP>	<port number>	SMTP server port number
<User> of <SMTP>	<string>	username
<Password> of <SMTP>	<string>	password
<MailTo>	<string>	recipient email address
<MailFrom>	<string>	Sender email address
<Encrypt>	0,1,2	The encryption type of SMTP 0: none 1: SSL-TLS 2: STARTTLS
<Enable> of <SD>	0,1	0: enable event video

		recipient of SD 1: disable event video recipient of SD
Method	GET Ex: /cgi-bin/admin/param.cgi?action=list&VideoEvtRcpt	
Function	This function is used to list recipient information of event video.	
Return Result	The XML DOM of recipient information of event video	

1.11.5 Event Snapshot Recipient

Action	http://<IP address>/cgi-bin/admin/param.cgi	
Format	XML DOM	
Method	POST Ex: /cgi-bin/admin/param.cgi?action=update&SnapshotEvtRcpt	
Function	This function is used to setup recipient of event snapshot	
Parameter	Value	Description
action	update	setup event snapshot recipient
VideoEvtRcpt		setup event snapshot recipient
Post String	<pre> <root> <VideoEvtRcpt> <FTP> <Enable>0</Enable> <Server>192.168.1.1</Server> <Port>21</Port> <User>guest</User> <Password>guest</Password> <Path>\ftp\upload</Path> <Prefix>event</Prefix> <Interval>30</Interval> </FTP> <SMTP> <Enable>0</Enable> <Server>192.168.1.1</Server> <Port>25</Port> <User>guest</User> <Password>guest</Password> <MailTo>rcpt@mail.com</MailTo> <MailFrom>from@mail.com</MailFrom> <Encrypt>0</Encrypt> </SMTP> <SD> <Enable>1</Enable> </pre>	

	</SD> </VideoEvtRcpt> <root>	
Parameter	Value	Description
<Enable> of <FTP>	0,1	0: enable event video recipient of FTP 1: disable event video recipient of FTP Disable in period event video, one of FTP and SMTP can be enabled
<Server> of <FTP>	<server ip>	FTP server IP
<Port> of <FTP>	<port number>	FTP server port number
<User> of <FTP>	<string>	username
<Password> of <FTP>	<string>	password
<Path>	<string>	Upload path
<Prefix>	<string>	Prefix name of file
<Interval>	30	Not used, use default
<Enable> of <SMTP>	0,1	0: enable event video recipient of SMTP 1: disable event video recipient of SMTP Disable in period event video, one of FTP and SMTP can be enabled
<Server> of <SMTP>	<server ip>	SMTP server IP
<Port> of <SMTP>	<port number>	SMTP server port number
<User> of <SMTP>	<string>	username
<Password> of <SMTP>	<string>	password
<MailTo>	<string>	recipient email address
<MailFrom>	<string>	Sender email address
<Encrypt>	0,1,2	The encryption type of SMTP 0: none 1: SSL-TLS 2: STARTTLS
<Enable> of <SD>	0,1	0: enable event video

		recipient of SD 1: disable event video recipient of SD
Method	GET Ex: /cgi-bin/admin/param.cgi?action=list&SnapshotE vtRcpt	
Function	This function is used to list recipient information of event snapshot.	
Return Result	The XML DOM of recipient information of event snapshot	

1.11.6 Image setting

Action	http://<IP address>/cgi-bin/admin/param.cgi	
Format	XML DOM	
Method	POST Ex: /cgi-bin/admin/param.cgi?action=update&Video	
Function	This function is used to setup image setting	
Parameter	Value	Description
action	update	setup image setting
Video		setup image setting
Post String	<pre> <root> <Video> <Frequency>60</Frequency> <Flip>0</Flip> <Mirror>0</Mirror> <Template>indoor</Template> <Image> <Brightness>0</Brightness> <Saturation>128</Saturation> <Contrast>0</Contrast> </Image> <ISP_Master> <WDR> <Enable>off</Enable> </WDR> <AutoIris>off</AutoIris> <AE> <ExpMode>0</ExpMode> <Metering>0</Metering> <Strength>4</Strength> <MaxShutter>30</MaxShutter> <MinShutter>120</MinShutter> <MaxGain>64</MaxGain> <MinGain>1</MinGain> </AE> <AWB> <Mode>Auto</Mode> </AWB> </pre>	

	<pre> </ISP_Master> <ISP_VideoIn> <DeNoise> <Pre> <Enable>off</Enable> <Strength>105</Strength> </Pre> <Post> <Enable>on</Enable> <Strength>80</Strength> </Post> </DeNoise> <EdgeEnhance> <Enable>on</Enable> <Strength>5</Strength> </EdgeEnhance> </ISP_VideoIn> <LSensor> <Mode>AUTO</Mode> <Threshold>10</Threshold> <ICR_Mode>ON</ICR_Mode> <IR_Led>AUTO</IR_Led> </LSensor> </Video> <root> </pre>	
Parameter	Value	Description
<Frequency>	50,60	The flicker frequency(Hz), 50Hz/60Hz
<Flip>	0,1	0: disable image flip 1: enable image flip
<Mirror>	0,1	0: disable image mirror 1: enable image mirror
<Template>	indoor outdoor cloudy	Environment template for manual white balance setting
<Brightness>	-128~127	Brightness setting
<Saturation>	0~255	Saturation setting
<Contrast>	-128~127	Contrast setting

<Enable>	on off	on:enable WDR off:disable WDR
<AutoIris>		
<ExpMode>		
<Metering>		
<Strength>		
<MaxShutter>		
<MinShutter>		
<MaxGain>		
<MinGain>		
<Mode>		
<Enable> of <Pre>		
<Strength> of <Pre>		
<Enable> of <Post>		
<Strength> of <Post>		
<Enable> of <EdgeEnhance >		
<Strength> of <EdgeEnhance >		
<Mode>	AUTO COLOR MONO	AUTO: color or mono depends on light sensor's trigger COLOR: always color MONO: always mono
<Threshold>	5~100	Threshold of light sensor
<ICR_Mode>	AUTO ON OFF	AUTO:open or close IR-cut filter automatically depends on light sensor ON:close IR-cut filter OFF:open IR-cut filter
<IR_Led>	AUTO	Default setting, do not change
Method	GET Ex: /cgi-bin/admin/param.cgi?action=list&Video	
Function	This function is used to list image setting	
Return Result	The XML DOM of image setting	

--	--

1.11.7 Audio setting

Action	http://<IP address>/cgi-bin/admin/param.cgi	
Format	XML DOM	
Method	POST Ex: /cgi-bin/admin/param.cgi?action=update&Audio	
Function	This function is used to setup audio playback setting	
Parameter	Value	Description
action	update	setup audio playback setting
Audio		setup audio playback setting
Post String	<pre><root> <Audio> <Mute>1</Mute> <Volume>25</Volume> <Boost>1</Boost> <Encoder> <Type>G711</Type> <Mode>ulaw</Mode> <SampleRate>8000</SampleRate> </Encoder> </Audio> </root></pre>	
Parameter	Value	Description
<Mute>	0,1	0: playback mute disable 1: playback mute enable
<Volume>	0~80	Control playback volume
<Boost>	0,1	0: disable MIC boost 1: enable MIC boost
<Type>	G711	G711 CODEC, use default
<Mode>	ulaw	G711-ulaw, use default
<SampleRate>	8000	G711 CODEC sample rate, use default

Method	GET Ex: /cgi-bin/admin/param.cgi?action=list&Audio
Function	This function is used to get audio playback setting
Return Result	The XML DOM of audio playback setting

1.11.8 Audio Out setting

Action	http://<IP address>/cgi-bin/admin/param.cgi	
Format	XML DOM	
Method	POST Ex: /cgi-bin/admin/param.cgi?action=update&Audio_Out	
Function	This function is used to setup audio output device setting.	
Parameter	Value	Description
action	update	setup audio playback setting
Audio		setup audio playback setting
Post String	<pre><root> <Audio_Out> <Output_Selection>2</Output_Selection> <Volume>60</Volume> </Audio_Out> </root></pre>	
Parameter	Value	Description
< Output_Selection >	0,1	0: Speaker 1: Line out
<Volume>	0~80	Control playback volume
Method	GET Ex: /cgi-bin/admin/param.cgi?action=list&Audio_Out	
Function	This function is used to get audio output device setting	
Return Result	The XML DOM of audio playback setting	

1.11.9 Network setting

Action	http://<IP address>/cgi-bin/admin/param.cgi	
Format	XML DOM	
Method	POST Ex:	

	/cgi-bin/admin/param.cgi?action=update&Network	
Function	This function is used to setup network setting	
Parameter	Value	Description
action	update	setup network setting
Network		setup network setting
Post String	<pre> <root> <Network> <Type>pppoe</Type> <IP>0.0.0.0</IP> <Port>80</Port> <SubnetMask>0.0.0.0</SubnetMask> <Gateway>0.0.0.0</Gateway> <DNS1>0.0.0.0</DNS1> <DNS2>0.0.0.0</DNS2> <PPPOE> <Status>yes</Status> <IP>0.0.0.0</IP> <UserName>4561</UserName> <Password>4561</Password> </PPPOE> <SMTP> <Enable>yes</Enable> <Server>192.168.1.1</Server> <Port>25</Port> <User>guest</User> <Password>guest</Password> <Rcpt>rcpt@mail.com</Rcpt> <From>from@mail.com</From> <Encrypt>0</Encrypt> </SMTP> </Network> </root> </pre>	
Parameter	Value	Description
<Type>	dhcp static pppoe	dhcp: DHCP mode static: static mode pppoe: PPPoE mode
<IP>	<string>	IP address for static mode

<Port>	<value>	HTTP port number
<SubnetMask>	<string>	Subnet mask for static mode
<Gateway>	<string>	Gateway for static mode
<DNS1>	<string>	DNS server for static mode
<DNS2>	<string>	DNS server for static mode
<Status>	yes no	PPPoE connection status
<IP> of <PPPoE>	<string>	IP address of PPPoE
<UserName>	<string>	Username of PPPoE
<Password>	<string>	Password of PPPoE
<Enable>	yes	Enable SMTP, use default
<Server>	<string>	SMTP server
<Port>	<value>	Port number of SMTP server
<User> of <SMTP>	<string>	username
<Password> of <SMTP>	<string>	password
<MailTo>	<string>	recipient email address
<MailFrom>	<string>	Sender email address
<Encrypt>	0,1,2	The encryption type of SMTP 0: none 1: SSL-TLS 2: STARTTLS
Method	GET Ex: /cgi-bin/admin/param.cgi?action=list&Network	
Function	This function is used to get network setting	
Return Result	The XML DOM of network setting	

1.11.10 RTSP setting

Action	http://<IP address>/cgi-bin/admin/param.cgi	
Format	XML DOM	
Method	POST Ex: /cgi-bin/admin/param.cgi?action=update&RTSP	
Function	This function is used to setup RTSP setting	
Parameter	Value	Description
action	update	setup RTSP setting
Network		setup RTSP setting
Post String	<pre> <root> <RTSP> <Enable>>true</Enable> <Port>554</Port> <LiveStream> <Number>4</Number> <S00> <Name>live1.sdp</Name> </S00> <S01> <Name>live2.sdp</Name> </S01> <S02> <Name>live3.sdp</Name> </S02> <S03> <Name>live4.sdp</Name> </S03> </LiveStream> </RTSP> <Multicast> <S00> <Enable>>false</Enable> <IP>239.128.1.100</IP> <TTL>15</TTL> <VideoPort>5560</VideoPort> <AudioPort>5562</AudioPort> <DataPort>5564</DataPort> </pre>	

	<pre> </S00> <S01> <Enable>>false</Enable> <IP>239.128.1.100</IP> <TTL>15</TTL> <VideoPort>5566</VideoPort> <AudioPort>5568</AudioPort> <DataPort>5570</DataPort> </S01> <S02> <Enable>>false</Enable> <IP>239.128.1.100</IP> <TTL>15</TTL> <VideoPort>5572</VideoPort> <AudioPort>5574</AudioPort> <DataPort>5576</DataPort> </S02> <S03> <Enable>>false</Enable> <IP>239.128.1.100</IP> <TTL>15</TTL> <VideoPort>5578</VideoPort> <AudioPort>5580</AudioPort> <DataPort>5582</DataPort> </S03> <S04> <Enable>>false</Enable> <IP>239.128.1.100</IP> <TTL>15</TTL> <VideoPort>5584</VideoPort> <AudioPort>5586</AudioPort> <DataPort>5588</DataPort> </S04> </Multicast> <root> </pre>	
Parameter	Value	Description
<Enable>	true	Enable RTSP, use default
<Port>	<value>	Port number of RTSP
<Name>	live1.sdp	Session name of stream

	live2.sdp live3.sdp live4.sdp	live1.sdp: stream 1 live2.sdp: stream 2 live3.sdp: stream 3 live4.sdp: stream 4
Method	GET Ex: /cgi-bin/admin/param.cgi?action=list&RTSP	
Function	This function is used to get RTSP setting	
Return Result	The XML DOM of RTSP setting	

1.11.11 Product information

Action	http://<IP address>/cgi-bin/admin/param.cgi	
Format	XML DOM	
Method	GET Ex: /cgi-bin/admin/param.cgi?action=list&Product	
Function	This function is used to get product information	
Parameter	Value	Description
action	list	get product information
Product		get product information
Return Result	<pre><root> <Product> <Brand>Airlive</Brand> <ID>PD736</ID> <Name>FE-501DM</Name> <Mac>00:04:11:22:33:44</Mac> <FirmwareVersion>0.9.9_0110</FirmwareVersion> </Product> </root></pre>	
Parameter	Value	Description
<Brand>	<string>	Brand
<ID>	<string>	Product ID
<Name>	<string>	Product name
<Mac>	<string>	MAC address
<FirmwareVersion>	<string>	Firmware version

1.11.12 DDNS

Action	http://<IP address>/cgi-bin/admin/param.cgi	
Format	XML DOM	
Method	POST Ex: /cgi-bin/admin/param.cgi?action=update&DDNS	
Function	This function is used to setup DDNS setting Only support dyndns.com	
Parameter	Value	Description
action	update	setup DDNS setting
DDNS		setup DDNS setting
Post String	<pre><root> <DDNS> <Enable>on</Enable> <Server>0</Server> <HostName>hostname</HostName> <UserName>username</UserName> <Password>password</Password> <UpdatePeriod>1000</UpdatePeriod> <Status>NoConnection</Status> </DDNS> </DDNS> </root></pre>	
Parameter	Value	Description
<Enable>	on off	on: enable DDNS off: disable DDNS
<Server>	0: dyndns 1: no-ip 2: changeip	DDNS server
<HostName>	<string>	DDNS host name
<UserName>	<string>	Username of DDNS server
<Password>	<string>	Password of DDNS server
<UpdatePeriod>	<value>	DDNS update period, range from 600~86400
<Status>	NoConnection Connection	Status of DDNS connection

Method	GET Ex: /cgi-bin/admin/param.cgi?action=list&DDNS
Function	This function is used to get DDNS setting
Return Result	The XML DOM of DDNS setting

1.11.13 Wireless status

Action	http://<IP address>/cgi-bin/admin/param.cgi	
Format	XML DOM	
Method	GET Ex: /cgi-bin/admin/param.cgi?action=list&Wireless	
Function	This function is used to get wireless status	
Parameter	Value	Description
action	list	get wireless status
Wireless		get wireless status
Return Result	<pre> <root> <Wireless> <Connection>>true</Connection> <Status>no</Status> <IPMode>DHCP</IPMode> <Mac>00:40:58:61:01:00</Mac> <IP>0.0.0.0</IP> <Netmask>0.0.0.0</Netmask> <Gateway>0.0.0.0</Gateway> <SSID>12345678</SSID> <WirelessMode>infrastructure</WirelessMode > <OperationMode>Auto</OperationMode> </Wireless> </root> </pre>	

1.11.14 Stream setting

Action	http://<IP address>/cgi-bin/admin/param.cgi	
Format	XML DOM	
Method	POST Ex: /cgi-bin/admin/param.cgi?action=update&Stream0 /cgi-bin/admin/param.cgi?action=update&Stream1 /cgi-bin/admin/param.cgi?action=update&Stream2	
Function	This function is used to setup stream profile	
Parameter	Value	Description
action	update	setup setting
Stream0		setup stream0 profile
Stream1		setup stream1 profile
Stream2		setup stream2 profile
Post String	<pre> <root> <Stream0> <Template>Customized</template> <Fps>25</Fps> <Resolution>1280x720</Resolution> <Codec>h264</Codec> <H264> <GOP>25</GOP> <QT>CVBR</QT> <QP>30</QP> <Bitrate>1000000</Bitrate> </H264> <MPEG4> <GOP>30</GOP> <QT>NONE</QT> <QP>7</QP> <Bitrate>384000</Bitrate> </MPEG4> <MJPEG> <QP>50</QP> </MJPEG> </pre>	

	<pre> <TextOverlay> <Enable>on</Enable> <Text>CH1 %F %H:%M:%S</Text> </TextOverlay> </Stream0> </root> </pre>	
Parameter	Value	Description
<Template>	Fast General Low Customized	Fast: apply to LAN, wireless 802.11a/g, ADSL highspeed General: ADSL-512k/256k/128k, wireless 802.11b Low: ADSL-64k, Modem Customized: customized setting
<Fps>	5,8,10,15,20,25,30	Maximum frame rate
<Resolution>	1280x720 640x360 320x180	Stream resolution, only 1280x720 can be applied to Stream1
<Codec>	h264 mjpeg mpeg4	CODEC type
<GOP> of <H264>	5,8,10,15,20,25,30,40,50,60	GOP of h.264
<QT> of <H264>	CVBR VQCB NONE	CVBR: CBR mode 1 VQCB: CBR mode 2 NONE: VBR mode
<QP> of <H264>	25,30,40	QP of h.264 25: detailed quality 30: good quality 40: standard quality
<Bitrate> of <H264>	64000 128000 256000 384000 512000 768000 1000000	Bitrate of h.264 CBR mode

	1500000	
<GOP> of <MPEG4>	5,8,10,15,20,25,30,40,50,60	GOP of MPEG4
<QT> of <MPEG4>	CVBR VQCB NONE	CVBR: CBR mode 1 VQCB: CBR mode 2 NONE: VBR mode
<QP> of <MPEG4>	5,7,10	QP of MPEG4 5: detailed quality 7: good quality 10: standard quality
<Bitrate> of <MPEG4>	64000 128000 256000 384000 512000 768000 1000000 1500000	Bitrate of MPEG4 CBR mode
<QP> of <MJPEG>	30,50,100	QP of MJPEG 30: detailed quality 50: good quality 100: standard quality
<Enable>	on off	on: enable OSD off: disable OSD
<Text>	<string> <string> %F %H:%M:%S	<string>: disable time stamp <string> %F %H:%M:%S: enable time stamp
Method	GET Ex: /cgi-bin/admin/param.cgi?action=list&Stream0 /cgi-bin/admin/param.cgi?action=list&Stream1 /cgi-bin/admin/param.cgi?action=list&Stream2	
Function	This function is used to get stream profile	
Return Result	The XML DOM of stream profile	
Note	1.<Template>=Fast <Fps>=30	

	<p><GOP>=30 <Bitrate>=1500000 <QT>=NONE <QP> of <H264>=25 <QP> of <MPEG4>=5 <QP> of <MJPEG>=30</p> <p>2. <Template>=General <Fps>=15 <GOP>=15 <Bitrate>=512000 <QT>=NONE <QP> of <H264>=30 <QP> of <MPEG4>=7 <QP> of <MJPEG>=50</p> <p>2. <Template>=Low <Fps>=5 <GOP>=5 <Bitrate>=64000 <QT>=NONE <QP> of <H264>=40 <QP> of <MPEG4>=10 <QP> of <MJPEG>=100</p>
--	---

1.12 Ledstatus.lua

Action	http://<IP address>/cgi-bin/admin/ledstatus.lua	
Format	xml DOM	
Method	POST Ex: /cgi-bin/admin/ledstatus.lua	
Function	This function is used to setup LEDs and PIR	
Post String	<pre><root> <status> <led>off</led> <pir>on</pir> </status> </root></pre>	
Parameter	Value	Description
<led>	on off	on: LEDs on off: LEDs off
<pir>	on off	on: PIR enable off: PIR disable only apply to P731P
Return Result	<pre><?xml version="1.0" encoding="ISO-8859-1"?> <root> <reset_config>0</reset_config> </root></pre>	
Method	GET Ex: /cgi-bin/admin/ledstatus.lua	
Function	This function is used to get status of LEDs and PIR	
Return Result	The XML DOM of LEDs and PIR status	

1.13 Event_handling.lua

1.13.1 Video

Action	http://<IP address>/cgi-bin/operator/event_handling.lua?video
Format	xml DOM
Method	POST, the POST string is get from status of event video recipient by GET method Ex: /cgi-bin/operator/event_handling.lua?video
Function	This function is used to setup event video cyclic recording in SD card
Post String	<pre><?xml version="1.0" standalone="yes"?> <root> <video> <ftp> <enable>0</enable> <server>192.168.1.11</server> <port>211</port> <user>guest1</user> <interval>30</interval> <password>guest1</password> <path>\ftp\upload1</path> <prefix>event1</prefix> </ftp> <smtp> <enable>0</enable> <server>192.168.1.11</server> <port>251</port> <user>guest1</user> <interval>30</interval> <password>guest1</password> <rcpt>rcpt1@mail.com</rcpt> <from>from1@mail.com</from> <encrypt>1</encrypt> </smtp> <sd> <enable>1</enable></pre>

	<pre> <cyclic>0</cyclic> <path>/event/video</path> <freespace>64</freespace> </sd> </video> </root> </pre>	
Parameter	Value	Description
<cyclic>	0,1	0: disable cyclic storage 1: enable cyclic storage
Return Result	<pre> <?xml version="1.0" encoding="ISO-8859-1"?> <root> </root> </pre>	
Method	GET Ex: /cgi-bin/operator/event_handling.lua?video	
Function	This function is used to get status of event video recipient	
Return Result	The XML DOM of event video recipient <pre> <?xml version="1.0" standalone="yes"?> <root> <video> <ftp> <enable>0</enable> <server>192.168.1.11</server> <port>211</port> <user>guest1</user> <interval>30</interval> <password>guest1</password> <path>\ftp\upload1</path> <prefix>event1</prefix> </ftp> <smtp> <enable>0</enable> <server>192.168.1.11</server> <port>251</port> <user>guest1</user> <interval>30</interval> <password>guest1</password> <rcpt>rcpt1@mail.com</rcpt> <from>from1@mail.com</from> </pre>	

```
<encrypt>1</encrypt>
</smtp>
<sd>
  <enable>1</enable>
  <cyclic>0</cyclic>
  <path>/event/video</path>
  <freespace>64</freespace>
</sd>
</video>
</root>
```

1.13.2 Snapshot

Action	http://<IP address>/cgi-bin/operator/event_handling.lua?snapshot
Format	xml DOM
Method	POST, the POST string is get from status of event snapshot recipient by GET method Ex: /cgi-bin/operator/event_handling.lua?snapshot
Function	This function is used to setup event snapshot cyclic recording in SD card
Post String	<pre><?xml version="1.0" standalone="yes"?> <root> <snapshot> <ftp> <enable>0</enable> <server>192.168.1.11</server> <port>211</port> <user>guest1</user> <interval>30</interval> <password>guest1</password> <path>\ftp\upload1</path> <prefix>event1</prefix> </ftp> <smtp> <enable>0</enable> <server>192.168.1.11</server> <port>251</port> <user>guest1</user> <interval>30</interval> <password>guest1</password> <rcpt>rcpt1@mail.com</rcpt> <from>from1@mail.com</from> <encrypt>1</encrypt> </smtp> <sd> <enable>0</enable> <cyclic>1</cyclic> <path>/event/video</path> <freespace>64</freespace></pre>

	<pre> </sd> </snapshot> </root> </pre>	
Parameter	Value	Description
<cyclic>	0,1	0: disable cyclic storage 1: enable cyclic storage
Return Result	<pre> <?xml version="1.0" encoding="ISO-8859-1"?> <root> </root> </pre>	
Method	GET Ex: /cgi-bin/operator/event_handling.lua?snapshot	
Function	This function is used to get status of event snapshot recipient	
Return Result	The XML DOM of event snapshot recipient <pre> <?xml version="1.0" standalone="yes"?> <root> <snapshot> <ftp> <enable>0</enable> <server>192.168.1.11</server> <port>211</port> <user>guest1</user> <interval>30</interval> <password>guest1</password> <path>\ftp\upload1</path> <prefix>event1</prefix> </ftp> <smtp> <enable>0</enable> <server>192.168.1.11</server> <port>251</port> <user>guest1</user> <interval>30</interval> <password>guest1</password> <rcpt>rcpt1@mail.com</rcpt> <from>from1@mail.com</from> <encrypt>1</encrypt> </smtp> <sd> </pre>	

	<pre><enable>0</enable> <cyclic>1</cyclic> <path>/event/video</path> <freespace>64</freespace> </sd> </snapshot> </root></pre>
--	--

1.14 SD

1.14.1 SD status

Action	http://<IP address>/cgi-bin/admin/vrecord.cgi?command=sd_status	
Format	xml DOM	
Method	GET Ex: /cgi-bin/admin/vrecord.cgi? command=sd_status	
Function	This function is used to get status of SD card	
Return Result	The XML DOM of SD card status <?xml version="1.0" encoding="ISO-8859-1"?> <root> <filesystem>0</filesystem> <total_size>7744192</total_size> <used_size>73308</used_size> <free_size>7670884</free_size> <used_percentage>1</used_percentage> <enable_cyclic_storage>1</enable_cyclic_storage> <status>OK</status> <message>NO_ERROR</message> </root>	
Parameter	Value	Description
<filesystem>	<value>	Not used
<total_size>	<value>	Total size of SD card (Kbytes)
<used_size>	<value>	Used size of SD card (Kbytes)
<free_size>	<value>	Free size of SD card (Kbytes)
<used_percentage>	0~100	The percentage of SD card used (%)
<enable_cyclic_storage>	0,1	0: no cyclic mode 1: cyclic mode
<status>	OK Error	OK: SD card is attached Error: SD card is detached
<message>	NO_ERROR	NO_ERROR: SD card is

	SD_DETACHED	attached SD_DETACHED: SD card is detached
Note		

1.14.2 Recording status

Action	http://<IP address>/cgi-bin/admin/vrecord.cgi? command=vrec_status	
Format	xml DOM	
Method	GET Ex: /cgi-bin/admin/vrecord.cgi? command=vrec_status	
Function	This function is used to get status of SD card recording	
Return Result	The XML DOM of SD card recording status <?xml version="1.0" encoding="ISO-8859-1"?> <root> <status>OK</status> <message>VREC_RECORDING</message> </root>	
Parameter	Value	Description
<filesystem>	<value>	Not used
<status>	OK Error	OK: SD card is attached Error: SD card is detached
<message>	VREC_RECORDING VREC_NOT_RECORDING	VREC_RECORDING: recording VREC_NOT_RECORDING: not recording
Note		

1.14.3 sdvolume.lua

Action	http://<IP address>/cgi-bin/admin/sdvolume.lua	
Format	xml DOM	
Method	GET Ex: /cgi-bin/admin/sdvolume.lua	
Function	This function is used to get volume of SD card no matter Which file system is .	
Return Result	<pre><?xml version="1.0" encoding="ISO-8859-1" ?> <root> <SD_Partition> <Volume>63.3</Volume> </SD_Partition> </root></pre>	
Parameter	Value	Description
< Volume >	<value>	SD Volume (GB)
Note		

1.15 Playback

The video and snapshot files in SD card are sorted by date and time, there are 3-layers directories architecture: video(snapshot)->date->time. To search the files in SD card has to follow the following CGI layer by layer.

1.15.1 Video search

1.15.1.1 Search in directory of video

Action	http://<IP address>/cgi-bin/admin/vrecord.cgi?command=video_search&start=<yyyyMMddhhmm>&end=<yyyyMMddhhmm>&type=ui	
Format	xml DOM	
Method	GET Ex: /cgi-bin/admin/vrecord.cgi?command=video_search&start=201301290000&end=201301302359&type=ui	
Function	This function is used to list directories below directory of video	
Return Result	The XML DOM of directories below video directory <?xml version="1.0" encoding="ISO-8859-1"?> <root> <videoclip> <trigger_time>20130130</trigger_time> <file_name>20130130</file_name> </videoclip> <videoclip> <trigger_time>20130129</trigger_time> <file_name>20130129</file_name> </videoclip> <total_num>2</total_num> <dir_url>vrecord/videoclips/video</dir_url> <status>OK</status> <message>NO_ERROR</message> </root>	
Parameter	Value	Description
<trigger_time>	<yyyyMMdd>	The name of directory

		below directory of video
<file_name>	<yyyyMMdd>	The name of directory below directory of video
<total_num>	<value>	The total number of directories below directory of video
<dir_url>	<string>	The prefix name of directory
<status>	OK Error	OK: SD card is attached Error: SD card is detached
<message>	NO_ERROR SD_DETACHED	NO_ERROR: SD card is attached SD_DETACHED: SD card is detached
Note		

1.15.1.2 Search in directory of date

Action	<code>http://<IP address>/cgi-bin/admin/vrecord.cgi?command=video_search&start=<yyyyMMddhhmm>&end=<yyyyMMddhhmm>&type=ui</code>	
Format	xml DOM	
Method	GET, the parameters of start and end is get from results of searching in directory of video Ex: <code>/cgi-bin/admin/vrecord.cgi?command=video_search&start=201301300000&end=201301300000&type=ui</code>	
Function	This function is used to list directories below directory of date	
Return Result	<p>The XML DOM of directories below directory of date</p> <pre><?xml version="1.0" encoding="ISO-8859-1"?> <root> <videoclip> <trigger_time>0830</trigger_time> <file_name>0830</file_name> </videoclip> <videoclip> <trigger_time>0730</trigger_time> <file_name>0730</file_name> </videoclip> <total_num>2</total_num> <dir_url>vrecord/videoclips/video/20130130</dir_url> > <status>OK</status> <message>NO_ERROR</message> </root></pre>	
Parameter	Value	Description
<code><trigger_time></code>	<code><hhmm></code>	The name of directory below directory of date
<code><file_name></code>	<code><hhmm></code>	The name of directory below directory of date
<code><total_num></code>	<code><value></code>	The total number of directories below directory of date
<code><dir_url></code>	<code><string></code>	The prefix name of

		directory
<status>	OK Error	OK: SD card is attached Error: SD card is detached
<message>	NO_ERROR SD_DETACHED	NO_ERROR: SD card is attached SD_DETACHED: SD card is detached
Note		

1.15.1.3 Search in directory of time

Action	http://<IP address>/cgi-bin/admin/vrecord.cgi?command=video_search&start=<yyyyMMddhhmm>&end=<yyyyMMddhhmm>&type=ui	
Format	xml DOM	
Method	GET, the parameters of start and end is get from results of searching in directory of date Ex: /cgi-bin/admin/vrecord.cgi?command=video_search&start=201301300830&end=201301300830&type=ui	
Function	This function is used to list files below directory of time	
Return Result	The XML DOM of files below directory of time <?xml version="1.0" encoding="ISO-8859-1"?> <root> <videoclip> <trigger_time>20130130082143</trigger_time> <file_name>20130130082143.avi</file_name> </videoclip> <total_num>1</total_num> <dir_url>vrecord/videoclips/video/20130130/0830</dir_url> <status>OK</status> <message>NO_ERROR</message> </root>	
Parameter	Value	Description
<trigger_time>	<yyyyMMddhhmm>	The trigger time of file
<file_name>	<yyyyMMddhhmm>	The name of file below directory of time
<total_num>	<value>	The total number of files below directory of time
<dir_url>	<string>	The prefix name of directory
<status>	OK Error	OK: SD card is attached Error: SD card is detached
<message>	NO_ERROR SD_DETACHED	NO_ERROR: SD card is attached SD_DETACHED: SD card is detached

Note	
------	--

1.15.2 Snapshot search

1.15.2.1 Search in directory of snapshot

Action	http://<IP address>/cgi-bin/admin/vrecord.cgi?command=snapshot_search&start=<yyyyMMddhhmm>&end=<yyyyMMddhhmm>&type=ui	
Format	xml DOM	
Method	GET Ex: /cgi-bin/admin/vrecord.cgi?command=snapshot_search&start=201301290000&end=201301302359&type=ui	
Function	This function is used to list directories below directory of snapshot	
Return Result	The XML DOM of directories below snapshot directory <?xml version="1.0" encoding="ISO-8859-1"?> <root> <videoclip> <trigger_time>20130131</trigger_time> <file_name>20130131</file_name> </videoclip> <videoclip> <trigger_time>20130129</trigger_time> <file_name>20130129</file_name> </videoclip> <total_num>2</total_num> <dir_url>vrecord/videoclips/snapshot</dir_url> <status>OK</status> <message>NO_ERROR</message> </root>	
Parameter	Value	Description
<trigger_time>	<yyyyMMdd>	The name of directory below directory of snapshot
<file_name>	<yyyyMMdd>	The name of directory below directory of snapshot
<total_num>	<value>	The total number of directories below directory of snapshot

<dir_url>	<string>	The prefix name of directory
<status>	OK Error	OK: SD card is attached Error: SD card is detached
<message>	NO_ERROR SD_DETACHED	NO_ERROR: SD card is attached SD_DETACHED: SD card is detached
Note		

1.15.2.2 Search in directory of date

Action	<code>http://<IP address>/cgi-bin/admin/vrecord.cgi?command=snapshot_search&start=<yyyyMMddhhmm>&end=<yyyyMMddhhmm>&type=ui</code>	
Format	xml DOM	
Method	GET, the parameters of start and end is get from results of searching in directory of snapshot Ex: <code>/cgi-bin/admin/vrecord.cgi?command=snapshot_search&start=201301310000&end=201301310000&type=ui</code>	
Function	This function is used to list directories below directory of date	
Return Result	<p>The XML DOM of directories below directory of date</p> <pre><?xml version="1.0" encoding="ISO-8859-1"?> <root> <videoclip> <trigger_time>1415</trigger_time> <file_name>1415</file_name> </videoclip> <videoclip> <trigger_time>1360</trigger_time> <file_name>1360</file_name> </videoclip> <total_num>2</total_num> <dir_url>vrecord/videoclips/snapshot/20130131</dir_url> <status>OK</status> <message>NO_ERROR</message> </root></pre>	
Parameter	Value	Description
<code><trigger_time></code>	<code><hhmm></code>	The name of directory below directory of date
<code><file_name></code>	<code><hhmm></code>	The name of directory below directory of date
<code><total_num></code>	<code><value></code>	The total number of directories below directory of date
<code><dir_url></code>	<code><string></code>	The prefix name of

		directory
<status>	OK Error	OK: SD card is attached Error: SD card is detached
<message>	NO_ERROR SD_DETACHED	NO_ERROR: SD card is attached SD_DETACHED: SD card is detached
Note		

1.15.2.3 Search in directory of time

Action	http://<IP address>/cgi-bin/admin/vrecord.cgi?command=snapshot_search&start=<yyyyMMddhhmm>&end=<yyyyMMddhhmm>&type=ui	
Format	xml DOM	
Method	GET, the parameters of start and end is get from results of searching in directory of date Ex: /cgi-bin/admin/vrecord.cgi?command=snapshot_search&start=201301311415&end=201301311415&type=ui	
Function	This function is used to list files below directory of time	
Return Result	The XML DOM of files below directory of time <?xml version="1.0" encoding="ISO-8859-1"?> <root> <videoclip> <trigger_time>20130131141149</trigger_time> <file_name>20130131141149.jpg</file_name> </videoclip> <videoclip> <trigger_time>20130131141147</trigger_time> <file_name>20130131141147.jpg</file_name> </videoclip> <videoclip> <trigger_time>20130131141146</trigger_time> <file_name>20130131141146.jpg</file_name> </videoclip> <total_num>3</total_num> <dir_url>vrecord/videoclips/snapshot/20130131/1415</dir_url> <status>OK</status> <message>NO_ERROR</message> </root>	
Parameter	Value	Description
<trigger_time>	<yyyyMMddhhmm>	The trigger time of file
<file_name>	<yyyyMMddhhmm>	The name of file below directory of time
<total_num>	<value>	The total number of files below directory of time

<dir_url>	<string>	The prefix name of directory
<status>	OK Error	OK: SD card is attached Error: SD card is detached
<message>	NO_ERROR SD_DETACHED	NO_ERROR: SD card is attached SD_DETACHED: SD card is detached
Note		

1.15.3 Remove file

Action	http://<IP address>/cgi-bin/admin/vrecord.cgi?command=remove	
Format	xml DOM	
Method	POST Ex: /cgi-bin/admin/vrecord.cgi?command=remove	
Function	This function is used to remove specific files of SD card	
POST String	<pre><?xml version="1.0" standalone="yes"?> <root> <total_num>2</total_num> <videoclip id="0"> <file_name>vrecord/videoclips/snapshot/20130131/ 1415/20130131141149.jpg</file_name> </videoclip> <videoclip id="1"> <file_name>vrecord/videoclips/snapshot/20130131/ 1415/20130131141147.jpg</file_name> </videoclip> </root></pre>	
Parameter	Value	Description
<total_num>	<value>	The total number of files to be removed
<file_name>	<string >	The name of file to be removed
Return Result	<p>The XML DOM of files below directory of time</p> <pre><?xml version="1.0" encoding="ISO-8859-1"?> <root> <status>OK</status> <message>NO_ERROR</message> </root></pre> <p></p> <pre><?xml version="1.0" encoding="ISO-8859-1"?> <root> <status>Error</status> <message>Can_Not_Remove_vrecord/videoclips/snap shot/20130131/1415/20130131141147.jpg </message> </root></pre>	

	<pre><?xml version="1.0" encoding="ISO-8859-1"?> <root> <status>Error</status> <message>REMOVE_SD_FILES_ERROR_0/1/2/3/4/5</ message> </root></pre>	
Parameter	Value	Description
<status>	OK Error	OK: remove is success Error: remove is fail
<message>	NO_ERROR Can_Not_Remove_vrecord _<string> REMOVE_SD_FILES_ERRO R_0 REMOVE_SD_FILES_ERRO R_1 REMOVE_SD_FILES_ERRO R_2 REMOVE_SD_FILES_ERRO R_3 REMOVE_SD_FILES_ERRO R_4 REMOVE_SD_FILES_ERRO R_5	Report the condition of remove directory or file
Note		

1.15.4 SMTP test CGI

1.15.4.1 None, STARTTLS

Action	http://<IP address>/cgi-bin/admin/ChkFtpSmtprv.cgi?Remote=smtp://username:password@IP:Port&Rcpt=mail_addr	
Format	Plain text	
Method	GET Ex: cgi-bin/admin/ChkFtpSmtprv.cgi?Remote=smtp://username:password@192.168.0.15:25&Rcpt=recipient@google.com	
Function	This function is used to test SMTP server with none or STARTTLS encryption	
Parameter	Value	Description
username	<string>	The username of SMTP server
password	<string >	The password of SMTP server
IP	<string>	The IP or domain name of SMTP server
port	<value>	The port number of SMTP server
Rcpt	<string>	The e-mail address of recipient

1.15.4.2 SSL-TLS

Action	http://<IP address>/cgi-bin/admin/ChkFtpSmtprcv.cgi?Remote=smtprcv://username:password@IP:Port&Rcpt=mail_addr	
Format	Plain text	
Method	GET Ex: cgi-bin/admin/ChkFtpSmtprcv.cgi?Remote=smtprcv://username:password@192.168.0.15:25&Rcpt=recipient@goole.com	
Function	This function is used to test SMTP server with SSL-TLS encryption	
Parameter	Value	Description
username	<string>	The username of SMTP server
password	<string >	The password of SMTP server
IP	<string>	The IP or domain name of SMTP server
port	<value>	The port number of SMTP server
Rcpt	<string>	The e-mail address of recipient

1.15.5 FTP test CGI

Action	http://<IP address>/cgi-bin/admin/ChkFtpSmtprSrv.cgi?Remote=ftp://username:password@IP:Port&Rcpt=upload_path	
Format	Plain text	
Method	GET Ex: cgi-bin/admin/ChkFtpSmtprSrv.cgi?Remote=ftp://username:password@192.168.0.15:21&Rcpt=\\home\user	
Function	This function is used to test FTP server	
Parameter	Value	Description
username	<string>	The username of FTP server
password	<string >	The password of FTP server
IP	<string>	The IP or domain name of FTP server
port	<value>	The port number of FTP server
Rcpt	<string>	The upload path of FTP server

1.15.6 Presnapview.lua

Action	http://<IP address>/cgi-bin/admin/presnapview.lua
Format	Plain text
Method	GET Ex: /cgi-bin/admin/presnapview.lua
Function	This function is used to get one snapshot from IP-cam
Return Result	The jpeg data of snapshot

1.15.7 showlog.lua

Action	http://<IP address>/cgi-bin/admin/showlog.lua
Format	Plain text
Method	GET Ex: /cgi-bin/admin/showlog.lua
Function	This function is used to get log message from IP-cam
Return Result	The log message of IP-cam <html><head> <title>System Log</title> <link rel="stylesheet" type="text/css" href="/css/default.css" media="all"> </head><body> <p class="confElement"> Jan 7 04:24:32 IP-Cam [SERVER PUSH][1577]: Start server push process with Pid : 1577 Oct 23 10:27:17 IP-Cam : [1]RTSP_CONN_NEW=> 192.168.1.61. Oct 23 10:27:18 IP-Cam : [1]RTSP_CONN_RETRANSMIT=> 192.168.1.61.
Oct 23 10:27:20 IP-Cam last message repeated 3 times Oct 23 10:27:55 IP-Cam : [1]RTSP_CONN_CLOSE=> 192.168.1.61. Oct 23 10:28:04 IP-Cam : [1]RTSP_CONN_NEW=> 192.168.1.61. Oct 23 10:28:05 IP-Cam : [1]RTSP_CONN_RETRANSMIT=> 192.168.1.61. <br

	<pre>>Oct 23 10:28:17 IP-Cam last message repeated 4 times
Oct 23 10:29:52 IP-Cam : [1]RTSP_CONN_CLOSE=> 192.168.1.61.
9</p> </body></html></pre>
--	--

1.15.8 syslog.lua

Action	http://<IP address>/cgi-bin/admin/syslog.lua	
Format	xml DOM	
Method	POST Ex: /cgi-bin/admin/syslog.lua	
Function	This function is used to set remote log server	
POST String	<pre><?xml version="1.0" encoding="ISO-8859-1"?> <root> <remotesyslog> <enable_remote_syslog>1</enable_remote_syslog> <server_ip>192.168.1.62</server_ip> <server_port>6666</server_port> <log_level>6</log_level> </remotesyslog> </root></pre>	
Parameter	Value	Description
<enable_remote_syslog>	1 0	1:enable remote log 0:disable remote log
<server_ip>	<string >	The IP address of remote log server
<server_port>	<string >	The port number of remote log server
<log_level>	6	Default setting, do not change

1.15.9 eventinfo

Action	http://<IP address>/cgi-bin/admin/eventinfo	
Format	plain text	
Method	GET Ex: /cgi-bin/admin/eventinfo	
Function	This function is used to push event motion/pir/gpio data to Client	
Return Result	Content-Type: multipart/x-mixed-replace; boundary=--evtinfo --evtinfo Content-Type: text/plain type=MOTION;group=3;percent=60;threshold=50; --evtinfo Content-Type: text/plain type=PIR;group=0;percent=0;threshold=0; --evtinfo Content-Type: text/plain type=GPIO;group=1;percent=0;threshold=0; --evtinfo Content-Type: text/plain type=NOINFO;group=0;percent=0;threshold=0; --evtinfo	
Parameter	Value	Description
type	<value>	MOTION or PIR or GPIO or NOINFO
group	<value>	motion window n or 0 or gpio number
percent	<value>	percent of motion window n or 0
threshold	<value>	threshold of motion window n or 0

1.15.10 ipfilter.lua

Action	http://<IP address>/cgi-bin/admin/ipfilter.lua
---------------	---

Format	xml DOM	
Method	GET/POST Ex: /cgi-bin/admin/ipfilter.lua	
Function	This function is used to setup IP filter settings	
Post String	<pre><?xml version="1.0" encoding="ISO-8859-1" ?> <root> <access_list> <deny> <rule id="0"><start>192.168.1.100</start> <end>192.168.1.110</end> </rule> <total_num>1</total_num> </deny> </access_list> </root></pre>	
Parameter	Value	Description
<rule id>	<value>	Rule number
<start>	<string>	Start IP of IP filter table
<end>	<string>	End IP of IP filter table
<total_num>	<value>	Total rule number
Function	This function is used to get IP filter settings	
Method	GET Ex: /cgi-bin/admin/ipfilter.lua	
Function	This function is used to get IP filter settings	
Return Result	The xml content about IP filter settings	

1.15.11 mount.lua

Action	http://<IP address>/cgi-bin/admin/mount.lua	
Format	xml DOM	
Method	GET/POST Ex: /cgi-bin/admin/mount.lua	
Function	This function is used to setup remote disk settings	
Post String	<pre><?xml version="1.0" encoding="ISO-8859-1" ?> <root> <mount> <enable>off</enable> <username></username> <password></password> <type>nfs</type> <hostname></hostname> <Status>off</Status> <totalsize>0</totalsize> <freesize>0</freesize> <usedsize>0</usedsize> <usedpercent>0</usedpercent> </mount> </root></pre>	
Parameter	Value	Description
<enable>	on,off	Enable remote disk
<username>	<string>	User name of remote disk
<password>	<string>	Password of remote disk
<type>	smbfs,nfs	Mount type of remote disk
<hostname>	<string>	Host name of remote disk
<Status>	on,off	Mount status of remote disk
<totalsize>	<value>	Total size of remote disk
<freesize>	<value>	Free size of remote disk
<usedsize>	<value>	Used size of remote disk
<usedpercent>	<value>	Used percent of remote disk
Function	This function is used to get remote disk settings	
Method	GET Ex:	

	/cgi-bin/admin/mount.lua
Function	This function is used to get remote disk settings
Return Result	The xml content about to get remote disk settings

1.15.12 gpiostatus.cgi

Action	http://<IP address>/cgi-bin/admin/gpiostatus.cgi
Format	plain text
Method	GET
Function	This function is used to get gpio status and number Return the number and status of DI and DO Ex: /cgi-bin/admin/gpiostatus.cgi
Return Result	Input.Number=1 Output.Number=1 Input.I00.Status=high Output.I01.Status=low

Chapter 2 CGI of Group

The users in IP-cam are classified by viewer, operator and admin group. The group has specific permission to request CGI. The admin group can request the CGI of viewer, operator and admin group, the operator group can request the CGI of viewer and operator group, the viewer group only can request the CGI of viewer group. The following is catalog of CGI.

CGI	Request path
talking.cgi	/cgi-bin/viewer/
fe.cgi	/cgi-bin/viewer/
	/cgi-bin/operator/
	/cgi-bin/admin/
param.cgi	/cgi-bin/viewer/
	/cgi-bin/operator/
	/cgi-bin/admin/
wireless.lua	/cgi-bin/operator/
	/cgi-bin/admin/
system.lua	/cgi-bin/operator/
	/cgi-bin/admin/
ledstatus.lua	/cgi-bin/operator/
	/cgi-bin/admin/
eventd_handling.lua	/cgi-bin/operator/
vrecord.cgi	/cgi-bin/admin/
user_sevurity.lua	/cgi-bin/admin/
restore.lua	/cgi-bin/admin/
hwrestore.lua	/cgi-bin/admin/
reboot.lua	/cgi-bin/admin/
upgrade.cgi	/cgi-bin/admin/
wireless_conn.lua	/cgi-bin/admin/
wireless_setting.cgi	/cgi-bin/admin/
ChkFtpSmtprv.cgi	/cgi-bin/admin/
presnapview.lua	/cgi-bin/admin/
showlog.lua	/cgi-bin/admin/

syslog.lua	/cgi-bin/admin/
eventinfo	/cgi-bin/admin/
ipfilter.lua	/cgi-bin/admin/
mount.lua	/cgi-bin/admin/
gpiostatus.cgi	/cgi-bin/admin/