

URL command for DCS-3420, DCS-6620/G, DCS-3220/G

Version 2.0I

2007/6/6

URL commands of Network Camera

For some customers who already have their own web site or web control application, Network Camera can be easily integrated through convenient URLs. This section lists the commands in URL format corresponding to the basic functions of Network Camera.

Overview

This section specifies the external HTTP based application programming interface. The HTTP based camera interface provides the functionality to request a single image, to control camera functions (PTZ, output relay etc.) and to get and set internal parameter values. The image and CGI-requests are handled by the built in Web server.

Style convention

In URL syntax and in descriptions of CGI parameters, a text in italic within angle brackets denotes a content that is to be replaced with either a value or a string. When replacing the text string also the angle brackets shall be replaced. An example of this is the description of the name for the server, denoted with <servername> in the URL syntax description below, that is replaced with the string myserver in the URL syntax example, also below.

URL syntax' are written with the "**Syntax:**" word written in bold face followed by a box with the referred syntax as seen below. The name of the server is written as <servername>. This is intended to be replaced with the name of the actual server. This can either be a name, e.g., "mywebcam" or "thecam.adomain.net" or the associated IP number for the server, e.g., 192.168.0.220.

Syntax:

```
http://<servername>/cgi-bin/video.jpg
```

Description of returned data is written with "**Return:**" in bold face followed by the returned data in a box. All data returned as HTTP formatted, i.e., starting with the string HTTP is line separated with a Carriage Return and Line Feed (CRLF) printed as \r\n.

Return:

```
HTTP/1.0 <HTTP code> <HTTP text>\r\n
```

URL syntax examples are written with "**Example:**" in bold face followed by a short

description and a light grey box with the example.

Example: request a single snapshot image

<http://mywebserver/cgi-bin/video.jpg>

General CGI URL syntax and parameters

CGI parameters are written in lower-case and as one word without any underscores or other separators. When the CGI request includes internal camera parameters, the internal parameters must be written exactly as they are named in the camera or video server. The CGIs are organized in function related directories under the cgi-bin directory. The file extension of the CGI is required.

Syntax:

```
http://<servername>/cgi-bin/<subdir>[/<subdir>...]/<cgi>.<ext>
[?<parameter>=<value>[&<parameter>=<value>...]]
```

Example: Setting digital output #1 to high

<http://mywebserver/cgi-bin/setparam.cgi?do1=h>

Get server parameter values

Note: This request require administrator access

Method: GET/POST

Syntax:

```
http://<servername>/cgi-bin/admin/getparam.cgi?[<parameter>]
[&<parameter>...]
```

where the *<parameter>* should be *<group>[_<name>]* or *<group>[.<name>]* If you do not specify the any parameters, all the parameters on the server will be returned. If you specify only *<group>*, the parameters of related group will be returned.

When query parameter values, the current parameter value are returned.

Successful control requests returns paramter pairs as follows.

Return:

```
HTTP/1.0 200 OK\r\n
Content-Type: text/html\r\n
Context-Length: <length>\r\n
\r\n
```

`<parameter pair>`

where `<parameter pair>` is

`<parameter>=<value>\r\n`

`[<parameter pair>]`

`<length>` is the actual length of content.

Example: request IP address and it's response

Request:

```
http://192.168.0.123/cgi-bin/admin/getparam.cgi?network_ipaddress
```

Response:

```
HTTP/1.0 200 OK\r\n
```

```
Content-Type: text/html\r\n
```

```
Content-Length: 33\r\n
```

```
\r\n
```

```
network.ipaddress=192.168.0.123\r\n
```

Set server parameter values

Note: This request require administrator access

Method: GET/POST

Syntax:

```
http://<servername>/cgi-bin/admin/setparam.cgi?
```

```
[nosync=<value>&]<parameter>=<value>
```

```
[&<parameter>=<value>...][&return=<return page>]
```

parameter	value	description
nosync	0, 1	Specifies that there should be no sync (write) of the corresponding configuration file on flash. If parameter is omitted, a sync write will occur. <i>(note: this parameter must be put at begin of parameter list)</i>
<group>_<name>	value to assigned	Assign <code><value></code> to the parameter <code><group>_<name>..</code>
return	<code><return page></code>	Redirect to the page <code><return page></code> after the

		<p>parameter is assigned. The <i><return page></i> can be a full URL path or relative path according to the current path. If you omit this parameter, it will redirect to an empty page.</p> <p>(note: The return page can be a general HTML file(.htm, .html) or a D-Link server script executable (.vsp) file. It can not be a CGI command. It can not have any extra parameters. This parameter must be put at end of parameter list)</p>
--	--	--

Return:

```
HTTP/1.0 200 OK\r\n
Content-Type: text/html\r\n
Content-Length: <length>\r\n
\r\n
<parameter pair>
```

where *<parameter pair>* is

<parameter>= <value>\r\n

[*<parameter pair>*]

Only the parameters that you set and readable will be returned.

Example: Set the IP address of server to 192.168.0.123

Request:

http://myserver/cgi-bin/admin/setparam.cgi?Network_IPAddress=192.168.0.123

Response:

```
HTTP/1.0 200 OK\r\n
Content-Type: text/html\r\n
Content-Length: 33\r\n
\r\n
network.ipaddress=192.168.0.123\r\n
```

Available parameters on the server

NOTE: The bold characters in table are the default value of each parameter.

Group: **System**

NAME	VALUE	DESCRIPTION
hostname (r/w)	<text string shorter than 40 characters>	host name of server <<Wireless>Network Camera <with Pan/Tilt/<Zoom>>>
ledoff (r/w)	0	Do not turn off the led indicator
	1	Turn off the led indicator
Date (r/w)	<yyyy/mm/dd>	year, month and date separated by slash.
	<keep>	keep date unchanged
	<auto>	Using NTP to sync date/time automatically
Time (r/w)	<hh:mm:ss>	hour, minute and second separated by colon.
	<keep>	keep date unchanged
	<auto>	Using NTP to sync date/time automatically
Ntp (r/w)	<domain name or IP address>	NTP server <skip to invoke default server>
timezone (r/w)	-12 ~ 12	time zone, 8 means GMT +8:00 <8>
updateinterval (r/w)	0 ~ 2592000	0 to Disable automatic time adjustment, otherwise, it means the seconds between NTP automatic update interval. <0>
serialnumber (r)	<mac address>	12 characters mac address without hyphen connected
firmwareversion (r)	<text string shorter than 39 characters>	The version of firmware, including model, company, and version number
restore (w)	0	Restore the system parameters to default value.
	Positive integer	Restore the system parameters to default value and restart the server after <value> seconds.
reset (w)	0 ~ 65535	Restart the server after <value> seconds.
	-1	Not restart the server.

do<1~4> (w)	<state>	H – NC connected with COMMON
		L – NO connected with COMMON
di<1~4> (r)	<state>	H – NC connected with COMMON
		L – NO connected with COMMON
supportscriptversion (r)	<text string shorter than 10 characters>	The version of supported script/webpage
scriptversion (r)	<text string shorter than 10 characters >	The maximum version of currently installed script/webpage
language (r)	<text string shorter than 16 characters>	The webpage language
webpageversion (r)	<text string shorter than 39 characters>	The version of webpage
enableir (r/w)	0	Turn on the IR control
	1	Turn off the IR control
ptzenabled (r)	32-bit integer	Indicate the operations of camera supported

Group: **Security**

NAME	VALUE	DESCRIPTION
username_<1~20> (r/w)	<text string shorter than 16 characters>	change user name. <blank>
userpass_<0~20> (r/w)	<text string shorter than 14 characters>	change user's password. The UserPass_0 is root's password. <blank>
userattr_<1~20> (r/w)	[dido][talk][listen][camctrl][conf]	change user's privilege. The privilege can be the combination of dido – Permit I/O access talk – Permit to talk to server listen – Permit to listen from server camctrl – Permit to do camera control conf – Permit to change server's configuration <blank>
usercount (r)	1 ~ 21	The current account number on the server including root. <1>

Group: **Network**

NAME	VALUE	DESCRIPTION
resetip (r/w)(restart)	1	enable to get ipaddress, subnet, router, dns1, dns2 from DHCP server at next reboot
	0	Using preset ipaddress, subnet, router, dns1, dns2
ipaddress (r/w) (restart)	<IP address>	IP address of server <192.168.0.99>
subnet (r/w) (restart)	<IP address>	subnet mask <255.255.255.0>
router (r/w) (restart)	<IP address>	default gateway <blank>
dns1 (r/w) (restart)	<IP address>	primary DNS server <blank>
dns2 (r/w) (restart)	<IP address>	secondary DNS server <blank>
smtp1 (r/w)	<domain name or IP address, string shorter than 40 characters>	primary SMTP server <blank>
mailto1 (r/w)	<string shorter than 80 characters>	mail recipient address <blank>
mailuser1 (r/w)	<text string shorter than 63 characters>	User name of primary smtp server <blank>
mailpass1 (r/w)	<text string shorter than 15 characters>	Password of primary smtp server <blank>
smtp2 (r/w)	<domain name or IP address, string shorter than 40 characters>	secondary SMTP server <blank>
mailto2 (r/w)	<text string shorter than 80 characters>	mail recipient address <blank>
mailuser2 (r/w)	<text string shorter than 63 characters>	User name of secondary smtp server <blank>
mailpass2 (r/w)	<text string shorter than 15 characters>	Password of secondary smtp server <blank>
returnemail (r/w)	<text string shorter than 80 characters>	return email address <blank>
localftpport (r/w)	<positive number less than 65535>	FTP port <21>
ftp1	<domain name or IP	primary FTP server

(r/w)	address, string shorter than 40 characters >	<blank>
ftpport1 (r/w)	<positive number less than 65535>	primary FTP port <21>
ftpuser1 (r/w)	<text string shorter than 63 characters>	user name for primary FTP server <blank>
ftppass1 (r/w)	<text string shorter than 15 characters>	password for primary FTP server <blank>
ftpfolder1 (r/w)	<text string shorter than 40 characters>	upload folder in primary FTP server <blank>
ftppasvmode1 (r/w)	1	Enable passive mode of primary FTP server
	0	Disable passive mode of primary FTP server
ftp2 (r/w)	<domain name or IP address, string shorter than 40 characters >	secondary FTP server
ftpport2 (r/w)	<positive number less than 65535>	secondary FTP port <21>
ftpuser2 (r/w)	<text string shorter than 63 characters>	user name for secondary FTP server <blank>
ftppass2 (r/w)	<text string shorter than 15 characters>	password for secondary FTP server <blank>
ftpfolder2 (r/w)	<text string shorter than 40 characters>	upload folder in secondary FTP server <blank>
ftppasvmode2 (r/w)	1	Enable passive mode of primary FTP server
	0	Disable passive mode of primary FTP server
httpport (r/w) (restart)	<positive number less than 65535>	HTTP port <80>
videoport (r/w) (restart)	<positive number less than 65535>	video Channel port for UDP <5003>
audioport (r/w) (restart)	<positive number less than 65535>	audio Channel port for UDP <5002>

Group: **Wireless (restart) (for Intersil wireless lan card)**

ssid (r/w)	<text string shorter than 32 characters>	SSID for wireless lan settings <default>
wlmode (r/w)	0	Infrastructure mode
	1	Adhoc mode

channel (r/w)	1 ~ 11	Channel number of USA and Canada <6>
	1 ~ 13	Channel number of Euro <6>
	10 ~ 11	Channel number of Spain <10>
	10 ~ 13	Channel number of France <10>
	1 ~ 14	Channel number of All <6>
txrate (r/w)	"NONE", "1M", "2M", "5.5M", "11M", "22M" for 802.11b+ "NONE", "1M", "2M", "5.5M", "11M", "6M", "9M", "12M", "18M", "24M", "36M", "48M", "54M", "Auto" for 802.11g	Transmit rate in Mbps <Auto>
preamble (r/w)	Long	Long preamble
	Short	Short preamble
encrypt (r/w)	1	Enable data encryption
	0	Disable data encryption
authmode (r/w)	Auto	Automatic mode
	Open	Open mode
	Shared	Shared mode
keylength (r/w)	(64, 128, 256) for 802.11b+ (64, 128) for 802.11g	Key length in bits <64>
keyformat (r/w)	HEX	Key1 ~ Key4 will be represented in HEX format
	ASCII	Key1 ~ Key4 will be represented in ASCII format
keyselect (r/w)	1 ~ 4	Default key number <1>

key1 (r/w)	<text string shorter than 58 characters> (depends on keyformat & keylength)	WEP key1 for encryption <0000000000>
key2 (r/w)	<text string shorter than 58 characters> (depends on keyformat & keylength)	WEP key2 for encryption <0000000000>
key3 (r/w)	<text string shorter than 58 characters> (depends on keyformat & keylength)	WEP key3 for encryption <0000000000>
key4 (r/w)	<text string shorter than 58 characters> (depends on keyformat & keylength)	WEP key4 for encryption <0000000000>
domain (r)	'U' for USA 'C' for Canada 'E' for Euro 'S' for Spain 'F' for France 'I' for Isrel 'A' for All	Wireless domain

Group: **Wireless (restart) (for ralink wireless lan card)**

ssid (r/w)	<text string shorter than 32 characters>	SSID for wireless lan settings <default>
wlmode (r/w)	0	Infrastructure mode
	1	Adhoc mode
channel (r/w)	1 ~ 11	Channel number of USA and Canada <6>
	1 ~ 13	Channel number of Euro <6>
	10 ~ 11	Channel number of Spain <10>
	10 ~ 13	Channel number of France <10>

	1 ~ 14	Channel number of All <6>
txrate (r/w)	"NONE", "1M", "2M", "5.5M", "11M", "6M", "9M", "12M", "18M", "24M", "36M", "48M", "54M", "Auto" for 802.11g	Transmit rate in Mbps <Auto>
preamble (r/w)	Long	Long preamble
	Short	Short preamble
encrypt (r/w)	2	Enable data encryption in WPA mode
	1	Enable data encryption in WEP mode
	0	Disable data encryption
authmode (r/w)	Auto	Automatic mode
	Open	Open mode
	Shared	Shared mode
keylength (r/w)	(64, 128) for 802.11g	Key length in bits <64>
keyformat (r/w)	HEX	Key1 ~ Key4 will be represented in HEX format
	ASCII	Key1 ~ Key4 will be represented in ASCII format
keyselect (r/w)	1 ~ 4	Default key number <1>
key1 (r/w)	<text string shorter than 58 characters> (depends on keyformat & keylength)	WEP key1 for encryption <0000000000>
key2 (r/w)	<text string shorter than 58 characters> (depends on keyformat & keylength)	WEP key2 for encryption <0000000000>
key3 (r/w)	<text string shorter than 58 characters> (depends on keyformat & keylength)	WEP key3 for encryption <0000000000>

key4 (r/w)	<text string shorter than 58 characters> (depends on keyformat & keylength)	WEP key4 for encryption <0000000000>
domain (r)	'U' for USA 'C' for Canada 'E' for Euro 'S' for Spain 'F' for France 'I' for Isrel 'A' for All	Wireless domain
presharedkey	<text string shorter than 64 characters>	WPA mode pre-shared key value

Group: **IPFilter (for 7000 series only)**

NAME	VALUE	DESCRIPTION
allowstart_<0~9> (r/w)	1.0.0.0 ~ 255.255.255.255	Allowed starting RTSP connection IP address <1.0.0.0>
allowend_<0~9> (r/w)	1.0.0.0 ~ 255.255.255.255	Allowed ending RTSP connection IP address <255.255.255.255>
denystart_<0~9> (r/w)	1.0.0.0 ~ 255.255.255.255	Denied starting RTSP connection IP address <blank>
denyend_<0~9> (r/w)	1.0.0.0 ~ 255.255.255.255	Denied ending RTSP connection IP address <blank>

Group: **Video**

NAME	VALUE	DESCRIPTION
text (r/w)	<text string shorter than 14 characters>	enclosed caption <blank>
codectype (r/w) (only available in DCS-3420, DCS-6620/G, DCS-3220/G series)	0	MPEG4
	1	MJPEG
keyinterval (r/w)	1, 3, 5, 10, 30, 60, 90, 120	Key frame interval <120>

size (r/w)	1	Half
	2	half x 2
	3	Normal
	4	normal x 2
	5	double
color (r/w)	0	monochrome
	1	color
quality (r/w)	0	fix bit rate
	1	fix quantization
quant (r/w)	1	lowest quality of video
	2	lower quality of video
	3	normal quality of video
	4	higher quality of video
	5	highest quality of video
bitrate (r/w)	64000	set bit rate to 64K bps
	128000	set bit rate to 128K bps
	256000	set bit rate to 256K bps
	384000	set bit rate to 384K bps
	512000	set bit rate to 512K bps
	768000	set bit rate to 768K bps
	1000000	set bit rate to 1000K bps
	1200000	set bit rate to 1200K bps
maxframe (r/w)	1	set maximum frame rate to 1 fps
	2	set maximum frame rate to 2 fps
	3	set maximum frame rate to 3 fps
	5	set maximum frame rate to 5 fps
	10	set maximum frame rate to 10 fps
	15	set maximum frame rate to 15 fps
	20	set maximum frame rate to 20 fps
	25	set maximum frame rate to 25 fps
	30 (for NTSC only)	set maximum frame rate to 30 fps
mode (r/w) (in CMOS version only)	50	synchronize with 50Hz utility
	60	synchronize with 60Hz utility
whitebalance (r/w) (in CMOS version only)	1	auto white balance
	2	fixed indoor(2850K)
	3	fixed fluorescent (4500K)

	4	fixed outdoor(> 5000K)
modulation (r/w)(in server version only) (restart)	0	NTSC
	1	PAL
	2	AUTO
actualmodulation (r) (in built-in CCD version only)	0	NTSC
	1	PAL
flip (r/w)	1	flip image
	0	normal image
mirror (r/w)	1	mirror image
	0	normal image
imprinttimestam p (r/w)	1	Overlay time stamp on video
	0	Do not overlay time stamp on video
udpslowstart	1	Enable udp slow start
	0	Disable udp slow start

Group: **Audio**

NAME	VALUE	DESCRIPTION
bitrate (r/w)	8000	set bitrate to 8K bps
	24000	set bitrate to 24K bps
	32000	set bitrate to 32K bps
transfermode (r/w)	0	Full-duplex (Talk & Listen simultaneously)
	1	Half-duplex (Talk or Listen, not at the same time)
	2	Simplex – Talk only
	3	Simplex – Listen only
	4	Disable audio
sendclientaudio (r/w)	0	Do not send audio from active client to all other clients
	1	Send audio from active client to all other clients (only possible in Half-duplex)
source (r/w)	0	Use external microphone in
	1	Use build microphone
lowbandwidth (r/w)	0	Disable low bandwidth environment support
	1	Improve in low bandwidth environment

enableaec (r/w)	0	Disable
	1	Enable

Group: **Image**

NAME	VALUE	DESCRIPTION
brightness (r/w)	<-5 ~ 5>	Adjust brightness of image according to mode settings. <0>
saturation (r/w)	<-5 ~ 5>	Adjust saturation of image according to mode settings. <0>
contrast (r/w)	<-5 ~ 5>	Adjust contrast of image according to mode settings. <0>
hue (r/w)	<-5 ~ 5>	Adjust hue of image according to mode settings. <0>
mode (w)	Preview	Apply the parameter of image but not save
	Restore	Restore the last saved image parameters
	Save	Directly save the adjust image parameters

Group: **CCD (For IP61x2/IP61x4)**

NAME	VALUE	DESCRIPTION
irismode (r/w)	Video	Video Iris
	DC	DC Iris
irislevel (r/w)	<1 ~ 8>	Iris level when connect to auto iris lens. 1 => most brightness, 8 => most darkness <1>
autoelectronicshutter (r/w)	0	Turn off AES
	1	Turn on AES
enableblc (r/w)	0	Turn off backlight compensation
	1	Turn on backlight compensation
enableagc (r/w)	0	Set auto gain control to normal level
	1	Set auto gain control to MAX level
flickless (r/w)	0	Turn off flickless
	1	Turn on flickless (1/100 NTSC, 1/120 PAL)
update (w)	1	Update the above settings
mode (w)	Preview	Apply the parameter of image but not save

	Restore	Restore the last saved image parameters
	Save	Directly save the adjust image parameters

Group: **CCD (for DCS-6620(G) only)**

NAME	VALUE	DESCRIPTION
mode (r/w)	save	Only specified "mode=save" can make the parameters changed to desired values.
autoiris (r/w)	0 or 1	set 1 to enable auto iris, set 0 to disable auto iris
irislevel (r/w)	0~8	Set iris size, set bigger value to set bigger iris size
autoelectronics shutter (r/w)	0~7	Set electronica shutter speed. set 0 for auto shutter, set 1 for fixed at 1/60 (1/50). Bigger value, faster shutter.
ccd_whitebalancemode (r/w)	0~1	0: auto tracking white balance 1: white balance control
ccd_autotrackingwhitebalance (r/w)	0~8	Adjust colors by setting different levels. Set ccd_whitebalancemode to 0 before setting this parameter.
ccd_whitebalancecontrol (r/w)	0~8	Set different levels to meet different color temperatures (3200K~9600K). Set whitebalancemode to 1 before setting this parameter.
lowluxmode (r/w)	0 or 1	Turn off or on low lux mode
obwlowluxmode (r/w)	0 or 1	Turn off or on black/white video in low lux mode
enableblc (r/w)	0 or 1	Disable or enable back light compensation.
blcsenslevel (r/w)	0~7	Set back light compensation level
blcarea(0) (r/w)	0~255	First row in BLC area. 0 to indicate disabling all sub windows. 255 to indicate enabling all sub windows.
blcarea(1)	0~255	Second row in BLC area.

(r/w)		
blcarea(2) (r/w)	0~255	Third row in BLC area.
blcarea(3) (r/w)	0~255	Fourth row in BLC area.
blcarea(4) (r/w)	0~255	Fifth row in BLC area.
blcarea(5) (r/w)	0~255	Sixth row in BLC area.

Group: **Motion**

NAME	VALUE	DESCRIPTION
enabled (r/w)	0 1	disable motion detection enable motion detection
winenabled_<0~2> (r/w)	0 1	disable motion window #1 ~ #3 enable motion window #1 ~ #3
winname_<0~2> (r/w)	<text string shorter than 14 characters >	name of motion window #1 <blank>
winleft_<0~2> (r/w)	0 ~ 352 for CCD 0 ~ 320 for CMOS	Left coordinate of window position. <0>
wintop_<0~2> (r/w)	0 ~ 288 for PAL 0 ~ 240 for NTSC & CMOS	Top coordinate of window position. <0>
winwidth_<0~2> (r/w)	0 ~ 352 for CCD 0 ~ 320 for CMOS	Width of motion detection window. <0>
winheight_<0~2> (r/w)	0 ~ 288 for PAL 0 ~ 240 for NTSC & CMOS	Height of motion detection window. <0>
winobjsize_<0~2> (r/w)	0 ~ 100	Percent of motion detection window <0>
winsensitivity_<0~2> > (r/w)	0 ~ 100	Sensitivity of motion detection window <0>
update (w)	1	Update the above motion detection settings to take effect

Group: **DDNS**

NAME	VALUE	DESCRIPTION
enable (r/w)	0, 1	Enable or disable the dynamic dns. <0>
provider (r/w)	1 ~ 4	dyndns.org (dynamic) dyndns.org (custom) tzo.com dhs.org <1>
hostname (r/w)	Text string shorter than 127 characters.	Your dynamic hostname. <blank>
usernameemail (r/w)	Text string shorter than 63 characters.	Your user or email to login ddns service provider <blank>
passwordkey (r/w)	Text string shorter than 20 characters.	Your password or key to login ddns service provider <blank>
update (w)	0, 1	Update the above ddns settings to take effect

Group: **UPNP**

NAME	VALUE	DESCRIPTION
enable (r/w)	0, 1	Enable or disable the UPNP service. <1>

Group: **App**

NAME	VALUE	DESCRIPTION
scriptname (r/w)	<text string shorter than 255 characters>	File name of script <script.vssx>
enablescript (r/w)	0	Disable script
	1	Enable script

Group: **Feature**

NAME	VALUE	DESCRIPTION
event (r/w)	0	The value can be "OR"ed for supported features.

	1 (Bit 0)	support motion detection/dido/video loss information in video bitstream
	2 (Bit 1)	Reserved for PT31xx
	4 (Bit 2)	Support capabilities fields in sysinfo.cgi

Group: **CAMCTRL (DCS-6620(G) only)**

NAME	VALUE	DESCRIPTION
presetname_<0~9> (r/w)	Text string shorter than 40 characters.	The name of preset location <blank>
presetpan_<0~9> (r/w)	-104 ~ 104	The pan coordinate of preset location. <0>
presettilt_<0~9> (r/w)	-15 ~ 28	The tilt coordinate of preset location. <0>
patrolname_<0~19> (r/w)	Text string shorter than 40 characters.	The name of patrol location <blank>
panspeed (r/w)	-5 ~ 5	Pan speed <0>
tiltspeed (r/w)	-5 ~ 5	Tilt speed <0>
autospeed (r/w)	-5 ~ 5	Auto pan speed <0>
axisx (r)	-104 ~ 104	X coordinate of camera position <0>
axisy (r)	-15 ~ 28	Y coordinate of camera position <0>
dwelling (r/w)	0 ~ 9999	Time to dwelling when patrol <1>

Application page CGI command

Note: This request requires administrator privilege.

Method: GET/POST

Syntax:

```
http://<servername>/setup/app.vsp?[/method=<value>][&sun=<value>]
[&mon=<value>][&tue=<value>][&wed=<value>][&thu=<value>][&fri=<value>]
[&sat=<value>][&begin_time=<value>][&end_time=<value>][&exclude=<value>]
```

```
[&eventop=<value>][&delay=<value>][&prevnum=<value>][&ssfprefix=<value>]
[&dihigh=<value>][&dilow=<value>][&dirise=<value>][&difall=<value>]
[&motion1=<value>][&motion2=<value>][&motion3=<value>][&ioalarm=<value>]
[&mdalarm=<value>][&ioupload=<value>][&mdupload=<value>][&seqop=<value>]
[&sinter=<value>][&smethod=<value>][&suffix=<value>][&resetdo=<value>]
[&enablescript=Yes]
```

Return:

```
HTTP/1.0 200 OK\r\n
Content-Type: text/plain\r\n
Content-Length: <length>\r\n
\r\n
<depends on method value>
If(method == get || method == set)
{
  tue=<value>\r\n
  wed=<value>\r\n
  ...
}
Else if(method == normal)
{
  Application page contents
}
```

parameter	Value	description
method	get	Get parameters, if no parameter followed, all the parameters value will be listed. Otherwise, it will list followed parameter value.
	set	Set parameters
	normal	Display normal application page contents
sun	0/1	Disable/Enable Sunday weekly schedule check box
mon	0/1	Disable/Enable Monday weekly schedule check box
tue	0/1	Disable/Enable Tuesday weekly schedule check box

wed	0/1	Disable/Enable Wednesday weekly schedule check box
thu	0/1	Disable/Enable Thursday weekly schedule check box
fri	0/1	Disable/Enable Friday weekly schedule check box
sat	0/1	Disable/Enable Satday weekly schedule check box
begin_time	hh:mm:ss	Begin time of weekly schedule
end_time	hh:mm:ss	End time of weekly schedule
exclude	0/1	Disable/Enable all the time except for the above schedule check box
eventop	0/1	Disable/Enable Event operation
delay	1~999	Delay seconds before detect next event
prevnum	0~6	Number of pre-trigger event images
ssfprefix	<text string shorter than 60 characters>	Snapshot file name prefix for both event and sequential operation
dihigh	0/1	Enable/Disable trigger when input is high
dilow	0/1	Enable/Disable trigger when input is low
dirise	0/1	Enable/Disable trigger when input is rising
difall	0/1	Enable/Disable trigger when input is falling
motion1	0/1	Enable/Disable trigger when motion int window #1 is detected
motion2	0/1	Enable/Disable trigger when motion int window #2 is detected
motion3	0/1	Enable/Disable trigger when motion int window #3 is detected
ioalarm	0/1	Enable/Disable DO trigger when DI condition matched
mdalarm	0/1	Enable/Disable DO trigger when motion detection condition matched
ioupload	0/1	Enable/Disable upload snapshot when DI condition matched
mdupload	0/1	Enable/Disable upload snapshot when motion detection condition matched
seqop	0/1	Enable/Disable sequential operation
sinter	1 ~ 99999	Interval of sequential snapshot in second
smethod	mail	Send snapshot by e-mail
	ftp	Send snapshot by ftp

suffix	0/1	Enable/Disable FTP put snapshots with date and time suffix
resetdo	0/1	Reset/No reset DO when click save button
enablescript	Yes	Let the application script take effect, this parameter must be put at end of command

Example: Enable sequential send snapshot by every 1 second with email.

<http://myserver/setup/app.vsp?method=set&exclude=1&eventop=0&seqop=1&smethod=mail&sinter=1&enablescript=Yes>

Drive the digital output

Note: This request requires the privilege of I/O access control.

Method: GET/POST

Syntax:

```
http://<servername>/cgi-bin/setdo.cgi?do1=<state>[&do2=<state>]
[&do3=<state>][&do4=<state>][&return=<return page>]
```

Where state is H, L. H means NC (normal close) connected with COMMON and L means NO (normal open) connected with COMMON. The number of DO depends on the server type.

parameter	Value	description
do<num>	<state>	H – NC connected with COMMON
		L – NO connected with COMMON
return	<return page>	Redirect to the page <return page> after the parameter is assigned. The <return page> can be a full URL path or relative path according to the current path. If you omit this parameter, it will redirect to an empty page.

Example: Drive the digital output 1 to high and redirect to an empty page

<http://myserver/cgi-bin/setdo.cgi?do1=H>

Query status of the digital input

Note: This request requires the privilege of I/O access control.

Method: GET/POST

Syntax:

```
http://<servername>/cgi-bin/getdi.cgi?[di1][&di2][&di3][&di4]
```

If no parameter is specified, all the status of digital input will be returned.

Return:

```
HTTP/1.0 200 OK\r\n
Content-Type: text/plain\r\n
Content-Length: <length>\r\n
\r\n
[di1=<state>]\r\n
[di2=<state>]\r\n
[di3=<state>]\r\n
[di4=<state>]\r\n
```

where <state> can be H or L.

Example: Query the status of digital input 1

Request:

```
http://myserver/cgi-bin/getdi.cgi?di1
```

Response:

```
HTTP/1.0 200 OK\r\n
Content-Type: text/plain\r\n
Content-Length: 7\r\n
\r\n
di1=H\r\n
```

Query status of the digital output

Note: This request requires the privilege of I/O access control.

Method: GET/POST

Syntax:

```
http://<servername>/cgi-bin/getdo.cgi?[do1][&do2][&do3][&do4]
```

If no parameter is specified, all the status of digital output will be returned.

Return:

```
HTTP/1.0 200 OK\r\n
Content-Type: text/plain\r\n
Content-Length: <length>\r\n
\r\n
[do1= <state>]\r\n
[do2= <state>]\r\n
[do3= <state>]\r\n
[do4= <state>]\r\n
```

where <state> can be H or L.

Example: Query the status of digital output 1

Request:

```
http://myserver/cgi-bin/getdo.cgi?di1
```

Response:

```
HTTP/1.0 200 OK\r\n
Content-Type: text/plain\r\n
Content-Length: 7\r\n
\r\n
do1=H\r\n
```

Capture single snapshot

Note: This request require normal user privilege

Method: GET/POST

Syntax:

```
http://<servername>/cgi-bin/video.jpg
```

Server will return the most up-to-date snapshot in JPEG format. The size and quality of image will be set according to the JPEG settings on the server.

Return:

```
HTTP/1.0 200 OK\r\n
Content-Type: image/jpeg\r\n
[Content-Length: <image size>\r\n]

<binary JPEG image data>
```

Account management

Note: This request requires administrator privilege

Method: GET/POST

Syntax:

```
http://<servername>/cgi-bin/admin/editaccount.cgi?
method=<value>&username=<name>[&userpass=<value>][&privilege=<value>]
[&privilege=<value>][...][&return=<return page>]
```

parameter	value	description
method	add	Add an account to server. When using this method, "username" field is necessary. It will use default value of other fields if not specified.
	delete	Remove an account from server. When using this method, "username" field is necessary, and others are ignored.
	edit	Modify the account password and privilege. When using this method, "username" field is necessary, and other fields are optional. If not specified, it will keep original settings.
username	<name>	The name of user to add, delete or edit
userpass	<value>	The password of new user to add or that of old user to modify. The default value is an empty string.
privilege	<value>	The privilege of user to add or to modify. The privilege can be the addition of the following values. Ex: A user with DI/DO access and listen privilege can be assigned privilege as privilege=dido&privilege=listen.

	dido	DI/DO access privilege
	listen	listen privilege
	talk	talk privilege
	camctrl	camera control privilege (support only on PT(Z) version)
	conf	configuration privilege
return	<return page>	Redirect to the page <return page> after the parameter is assigned. The <return page> can be a full URL path or relative path according the the current path. If you omit this parameter, it will redirect to an empty page.

System logs

Note: This request require administrator privilege

Method: GET/POST

Syntax:

<http://<servername>/cgi-bin/admin/syslog.cgi>

Server will return the up-to-date system log.

Return:

```
HTTP/1.0 200 OK\r\n
Content-Type: text/plain\r\n
Content-Length: <syslog length>\r\n
\r\n
<system log information>\r\n
```

Configuration file

Note: This request requires administrator privilege

Method: GET/POST

Syntax:

```
http://<servername>/cgi-bin/admin/configfile.cgi
```

Server will return the up-to-date configuration file.

Return:

```
HTTP/1.0 200 OK\r\n
Content-Type: text/plain\r\n
Content-Length: <configuration file length>\r\n
\r\n
<configuration data>\r\n
```

Upload file (firmware) (Upsupported, do not use it)

Note: This request requires administrator privilege

Method: POST

Syntax:

```
http://<servername>/cgi-bin/admin/upload.cgi
```

Post data:

```
file=<file name>[&return=<return page>]\r\n
\r\n
<multipart encoded form data>
```

Server will accept the upload file named <file name> to be stored on the flash as "flash.bin" and return with <return page> if indicated.

Camera Control (For DCS-6620(G) series only)

Note: This request requires camera control access privilege

Method: GET/POST

Syntax:

```
http://<servername>/cgi-bin/camctrl.cgi? [move=<value>][&focus=<value>]
```

[&iris=<value>][&speedpan=<value>][&speedtilt=<value>][&speedzoom=<value>]
 [&speedapp=<value>][&auto=<value>][&zoom=<value>][&return=<return page>]

parameter	value	description
move	home	Move to camera to home position
	up	Move camera up
	down	Move camera down
	left	Move camera left
	right	Move camera right
speedpan	-5 ~ 5	Set the pan speed
speedtilt	-5 ~ 5	Set the tilt speed
speedzoom	-5 ~ 5	Set the zoom speed
speedapp	-5 ~ 5	Set the auto pan/patrol speed
auto	pan	Auto pan
	patrol	Auto patrol
	stop	Stop camera
zoom	wide	To zoom for larger view with current speed
	tele	To zoom for farer view with current speed
focus	auto	To do auto focus
	far	To focus on farer distance
	stop	To focus on nearer distance
iris	auto	Let the Network Camera control iris size
	open	Manually control the iris for bigger size
	stop	Manually control the iris for smaller size
return	<return page>	Redirect to the page <return page> after the parameter is assigned. The <return page> can be a full URL path or relative path according to the current path. If you omit this parameter, it will redirect to an empty page.

Recall (For DCS-6620(G) series only)

Note: This request requires camera control access privilege

Method: GET

Syntax:

```
http://<servername>/cgi-bin/recall.cgi?  
recall=<value>[&return=<return page>]
```

parameter	value	description
recall	Text string less than 30 characters	One of the present positions to recall.
return	<return page>	Redirect to the page <return page> after the parameter is assigned. The <return page> can be a full URL path or relative path according to the current path. If you omit this parameter, it will redirect to an empty page.

System Information

Note: This request requires normal user privilege

Method: GET/POST

Syntax:

```
http://<servername>/cgi-bin/sysinfo.cgi
```

Server will return the system information.

Return:

```
HTTP/1.0 200 OK\r\n  
Content-Type: text/plain\r\n  
Content-Length: <system information length>\r\n  
\r\n  
Model=<model name of server>\r\n  
HostName=<host name of server>\r\n
```

Location=<video on text of server>\r\n
 [Preset<0>=<first preset location>\r\n]
 [Preset<1>=<second preset location>\r\n]
 [...]
 PTZEnabled=<PTZ status>\r\n
 CapVersion=<value>\r\n
 Event=<value>\r\n
 RTSPPort=<value>\r\n
 RTSPAccessName=<value>\r\n
 CameraNumber=<value>\r\n
 UartNumber=<value>\r\n
 DINumber=<value>\r\n
 DONumber=<value>\r\n
 VideoCodec=<value>\r\n
 AudioCodec=<value>\r\n
 MotionDetectionMethod=<value>\r\n
 StreamingProtocol=<value>\r\n

Parameter (supported capability version)	Value	description
Model	system.firmwareversion	Model name of server.
HostName	system.hostname	Host name of server
(one channel) Location (multichannel) Location<0~>	(one channel) video.text (multichannel) video.text (first channel) video<1~>.text (other channels)	Text on video, representation the location of video
CapVersion	MMmm, MM is major version from 00 ~ 99 mm is minor version from 00 ~ 99 ex: 0100	The capability field version
Event (0100)	0	The value can be "OR"ed for supported features.

	1 (Bit 0)	support motion detection/dido/video loss information in video bitstream
	2 (Bit 1)	Reserved for PT31xx
	4 (Bit 2)	Support capabilities fields in sysinfo.cgi
RTSPPort (0100) (optional)	network.rtspport	Port number of RTSP
RTSPAccessName(0100) (optional)	network.accessname	Access name of RTSP
(one channel) Preset<0~> (multichannel) Preset<0~>-<0~> (0100)	(one channel) camctrl.presetname_<0~> (multichannel) camctrl.presetname_<0~> (first channel) camctrl<1~>.presetname_<0~> (other channels)	Preset locations of PTZ camera
(one channel) PTZEnabled (multichannel) PTZEnabled<0~>	An 32-bits integer, each bit can be set separately as follows: Bit 0=> Support camera control function 0(not support), 1(support) Bit 1=> Build-in or external camera. 0(external), 1(build-in) Bit 2=> Support pan operation. 0(not support), 1(support) Bit 3=> Support tilt operation. 0(not support), 1(support) Bit 4 => Support zoom operation. 0(not support), 1(support) <i>Bit 5=> Support focus operation. 0(not support), 1(support)</i>	
CameraNumber (0100)	0~16	Number of camera supported, 0 => not camera support
UartNumber (0100)	0~16	Number of uart supported, 0 => no uart support

DINumber (0100)	0~16	Number of DI supported, 0 => no DI
DONumber (0100)	0~16	Number of DO supported, 0 => no DO
VideoCodec (0100)	<codecname>,<codecname>,... Available video codec name: JPEG => Motion JPEG H263 => MPEG4 short header mode MP4V => MPEG4 simple profile	Supported video codec name separated by comma. Ex: JPEG, H263, MP4V
AudioCodec (0100)	<codecname>,<codecname>,... Available audio codec name: G722 => G.722.1 G729 => G.729A GAMR => GSM AMR AAC4 => MPEG4 AAC	Supported audio codec name separated by comma. Ex: G722, G729, GAMR, AAC4
MotionDetectionMethod (0100)	1 => full screen motion detection 3 => three windows motion detection	An integer to indicate the motion detection method
StreamingProtocol (0100)	<protocolname>, <protocolname>,... SG_JPEG_HTTP => single JPEG MP_MJPEG_HTTP => multi-part motion JPEG over HTTP 3000_V_HTTP => MPEG4 short header mode over HTTP 3000_AV_TCP => DCS-5300/G DCS-2100/G/+, DCS-2000, DVS-301 audio or video over TCP 3000_AV_UDP => DCS-5300/G DCS-2100/G/+, DCS-2000, DVS-301 audio or video over UDP 6000_AV_HTTP => DCS-3420, DCS-6620/G, DCS-3220/G audio or video over HTTP 6000_AV_UDP => DCS-3420, DCS-6620/G, DCS-3220/G audio or video over UDP 6000_TALK_HTTP => DCS-3420, DCS-6620/G, DCS-3220/G talk channel	Supported streaming protocol, Ex: SG_JPEG_HTTP, MP_MJPEG_HTTP

	over HTTP RTSP_RTP_UDP => RTP over UDP RTSP_RTP_TCP => RTP over RTSP RTSP_RTP_HTTP => RTSP, RTP over HTTP RTSP_RTP_MCAST => Backbone multicast RTP_MCAST => Scalable multicast	
--	---	--

Preset Locations (For DCS-6620(G) series only)

Note: This request requires administrator access privilege

Method: GET/POST

Syntax:

```
http://<servername>/cgi-bin/admin/preset.cgi?
[addpos=<value>][&delpos=<value>][&return=<return page>]
```

parameter	value	description
addpos	<Text string less than 30 characters>	Add one preset location to preset list.
delpos	<Text string less than 30 characters>	Delete preset location from preset list.
return	<return page>	Redirect to the page <return page> after the parameter is assigned. The <return page> can be a full URL path or relative path according to the current path. If you omit this parameter, it will redirect to an empty page.

IP filtering (For 7000 series only)

Note: This request requires administrator access privilege

Method: GET/POST

Syntax:

```
http://<servername>/cgi-bin/admin/ipfilter.cgi?  
method=<value>&[start=<ipaddress>&end=<ipaddress>][&index=<value>]  
[&return=<return page>]
```

Parameter	value	description
Method	addallow	Add a set of allow IP address range to server. Start and end parameters must be specified. If the index parameter is specified, it will try to add starting from index position.
	adddeny	Add a set of deny IP address range to server. Start and end parameters must be specified. If the index parameter is specified, it will try to add starting from index position.
	deleteallow	Remove a set of allow IP address range from server. If start and end parameters are specified, it will try to remove the matched IP address. If index is specified, it will try to remove the address from given index position. [start, end] parameters have higher priority then the [index] parameter.
	deletedeny	Remove a set of deny IP address range from server. If start and end parameters are specified, it will try to remove the matched IP address. If index is specified, it will try to remove the address from given index position. [start, end] parameters have higher priority then the [index] parameter.
start	<ip address>	The start IP address to add or to delete.
end	<ip address>	The end IP address to add or to delete.

index	<value>	The start position to add or to delete.
return	<return page>	Redirect to the page <return page> after the parameter is assigned. The <return page> can be a full URL path or relative path according the the current path. If you omit this parameter, it will redirect to an empty page.