PTZOptics HTTP-CGI Control Sheet

Control				*JDV 2021-10-15*
Function	**Command**	**Variable**	**Values**	**Comments**
Pan & Tilt	http://**[camera ip]**/cgi-bin/ptzctrl.cgi?ptzcmd&**[action]**&**[pan speed]**&**[tilt speed]**	**[camera ip]**	*cameras current IP	
		[action]	up	moves camera 'up'
			down	moves camera 'down'
			left	moves camera 'left'
			right	moves camera 'right'
			leftup	moves camera 'left' & 'up'
			rightup	moves camera 'right' & 'up'
			leftdown	moves camera 'left' & 'down'
			rightdown	moves camera 'right' & 'down'
			ptzstop	tells camera to 'stop' moving
		[pan speed]	1	slowest 'pan' speed
			...	ranges from 1 - 24
			24	fastest 'pan' speed
		[tilt speed]	1	slowest 'tilt' speed
			...	ranges from 1 - 20
			20	fastest 'tilt' speed
Zoom	http://**[camera ip]**/cgi-bin/ptzctrl.cgi?ptzcmd&**[action]**&**[zoom speed]**	**[camera ip]**	*cameras current IP	
		[action]	zoomin	zooms camera in
			zoomout	zooms camera out
			zoomstop	stops zooming
		[zoom speed]	1	slowest 'zoom' speed
			...	ranges from 1 - 7
			7	fastest 'zoom' speed
Focus	http://**[camera ip]**/cgi-bin/ptzctrl.cgi?ptzcmd&**[action]**&**[focus speed]**	**[camera ip]**	*cameras current IP	
		[action]	focusin	focuses camera in
			focusout	focuses camera out
			focusstop	stops focusing
		[focus speed]	1	slowest 'focus' speed
			...	ranges from 1 - 7
			7	fastest 'focus' speed
Focus Lock	http://**[camera ip]**/cgi-bin/param.cgi?ptzcmd&**[action]**_mfocus	**[camera ip]**	*cameras current IP	
		[action]	lock	locks focus state
			unlock	unlocks focus state
Home Position	http://**[camera ip]**/cgi-bin/ptzctrl.cgi?ptzcmd&home	**[camera ip]**	*cameras current IP	Moves camera to HOME
PT Reset	http://**[camera ip]**/cgi-bin/param.cgi?pan_tiltdrive_reset	**[camera ip]**	*cameras current IP	Performs pan / tilt reset "dance"
Preset	http://**[camera ip]**/cgi-bin/ptzctrl.cgi?ptzcmd&**[action]**&**[position number]**	**[camera ip]**	*cameras current IP	
		[action]	posset	position 'set'
			poscall	position 'call'
		[position number]	0	beginning of range 1
			...	range 1 from 0-89
			89	end of range 1
			100	beginning of range 2
			...	range 2 from 100-254
			254	end of range 2
Direct Position Recall	http://**[camera ip]**/cgi-bin/ptzctrl.cgi?ptzcmd&**[mode]**&**[pan speed]**&**[tilt speed]**&**[pan position]**&**[tilt position]**	**[camera ip]**	*cameras current IP	
		[mode]	abs	Absolute Positioning
			rel	Relative Positioning
		[pan speed]	1	slowest 'pan' speed
			...	ranges from 1 - 24
			24	fastest 'pan' speed
		[tilt speed]	1	slowest 'tilt' speed
			...	ranges from 1 - 20
			20	fastest 'tilt' speed
		[pan position]	0000 or FFFF	home position
			0001	first step pan right
			...	range from 0000 to 0990 (HEX)
			0990	last step pan right
			FFFE	first step pan left
			...	range from FFFF to F670 (HEX)
			F670	last step pan left
		[tilt position]	0000 or FFFF	Home Position
			0001	first step tilt up
			...	range from 0000 to 0510 (HEX)
			0510	last step tilt up
			FFFE	first step tilt down
			...	range from FFFF to FE51 (HEX)
			FE51	last step tilt down
Direct Zoom Recall	http://**[camera ip]**/cgi-bin/ptzctrl.cgi?ptzcmd&zoomto&**[zoom speed]**&**[zoom position]**	**[camera ip]**	*cameras current IP	
		[zoom speed]	0	slowest zoom speed
			...	range from 0 - 7
			7	fastest zoom speed
		[zoom position]	0000	Full Wide
			...	range from 0 - 4000 (HEX)
			4000	Full Tele
Navigation				
Function	**Command**	**Variable**	**Values**	**Comments**
OSD Access	http://**[camera ip]**/cgi-bin/param.cgi?navigate_mode&**[mode]**	**[camera ip]**	*cameras current IP	
		[mode]	OSD	Calls OSD Menu

OSD Menu Navigation	http://[camera ip]/cgi-bin/ptzctrl.cgi?ptzcmd&[action]	[camera ip]	*cameras current IP	PTZ	P/T/Z Control Mode
				up	moves menu selection 'up'
				down	moves menu selection 'down'
				left	Adjusts OSD option left
				right	Adjusts OSD option right
	http://[camera ip]/cgi-bin/param.cgi?navigate_mode&[mode]	[camera ip]	*cameras current IP		
		[mode]	CONFIRM		Selects an OSD option
			OSD_BACK		Returns to previous menu

Image Adjustments

Function	Command	Variable	Values	Comments
Image Settings	http://[camera ip]/cgi-bin/param.cgi?post_image_value&[mode]&[level]	[camera ip]	*cameras current IP	
		[mode]	bright	adjust brightness
			saturation	adjust saturation
			contrast	adjust contrast
			sharpness	adjust sharpness
			hue	adjust hue
		[level]	0	beginning of range
			...	ranges from 0 -14
			14	end of range
Image Orientation	http://[camera ip]/cgi-bin/param.cgi?post_image_value&[mode]&[state]	[camera ip]	*cameras current IP	
		[mode]	flip	flipped image adjustments
			mirror	mirrored image adjustments
		[state]	1	flip / mirror
			0	default
Default Image Settings	http://[camera ip]/cgi-bin/param.cgi?get_image_default_conf	[camera ip]	*cameras current IP	Defaults all image settings above
Exposure Settings	http://[camera ip]/cgi-bin/param.cgi?post_image_value&aemode&[mode]	[camera ip]	*cameras current IP	
		[mode]	auto	set camera to auto exposure
			manual	set camera to manual exposure
			shutter	set camera to sae exposure
			iris	set camera to aae exposure
			bright	set camera to bright exposure
White Balance Settings	http://[camera ip]/cgi-bin/param.cgi?post_image_value&wbmode&[mode]	[camera ip]	*cameras current IP	
		[mode]	auto	set camera to auto white balance
			indoor	set camera to indoor white balance
			outdoor	set camera to outdoor white balance
			onepush	set camera to onepush white balance
			manual	set camera to manual white balance
			var	set camera to var white balance
			trigger	calculate white balance while in onepush

JPEG Snapshot

Function	Command	Variable	Values	Comments
Take Snapshot	http://[camera ip]/snapshot.jpg	[camera ip]	*cameras current IP	Takes a JPEG snapshot
Change Resolution	http://[camera ip]/cgi-bin/snapshot.cgi?post_snapshot_conf&resolution=[size]	[camera ip]	*cameras current IP	
		[size]	1920x1080	Sets JPEG resolution to 1920x1080
			960x600	Sets JPEG resolution to 960x600
			480x300	Sets JPEG resolution to 480x300

Photobooth Pictures

Function	Command	Variable	Values	Comments
Take Pictures	http://[camera ip]/cgi-bin/booth.cgi?0&4&[delay]&photo&0	[camera ip]	*cameras current IP	
		[delay]	1	shortest delay
			...	delay in seconds 1 - 9
			9	longest delay
Download Pictures	http://[camera ip]/photo[num].jpg	[num]	1	
			...	
			4	

Photobooth Videos

Function	Command	Variable	Values	Comments
Take Video	http://[camera ip]/cgi-bin/booth.cgi?0&4&[delay]&video&[length]	[camera ip]	*cameras current IP	
		[delay]	1	shortest delay
			...	*delay in seconds 1 - 9*
			9	longest delay
		[length]	1	shortest length
			...	length in seconds 1 - 10
			10	longest length
Download Video	http://[camera ip]/video[num].mp4	[num]	1	
			...	
			4	

Inquiries

Function	Command	Variable	Values	Comments
Video	http://[camera ip]/cgi-bin/param.cgi?get_media_video	[camera ip]	*cameras current IP	Network Video Configuration
Audio	http://[camera ip]/cgi-bin/param.cgi?get_media_audio	[camera ip]	*cameras current IP	Network Audio Configuration
Network	http://[camera ip]/cgi-bin/param.cgi?get_network_conf	[camera ip]	*cameras current IP	Network Configuration
Information	http://[camera ip]/cgi-bin/param.cgi?get_device_conf	[camera ip]	*cameras current IP	Camera Information
Serial Number	http://[camera ip]/cgi-bin/param.cgi?get_serial_number	[camera ip]	*cameras current IP	Serial Number *Not always accurate

Note: The Action Values are case sensitive and may not execute if sent incorrectly.