



Technology Specification

Parameters Specification

3S Product

Version	Date	Changes
1.7	2011/01/13	Notify.Period
1.8	2011/3/3	Properties, Event.E#, Network.Wireless, ImageSource.I0.DayNight, Sensor.PIR

PocketNet Technology Inc





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1. Overview

This document specifies the parameters and configuration files for 3S IP camera using firmware version and above.

These requests have different security levels. The security level for each parameter is specified in the [3S CGI Specification.pdf](#).

1. Security levels

The security levels column in each parameter table shows the required security level to operate parameters. The numbers represent security levels on the form create/delete for groups and get/set for parameters. To be able to perform an action on a parameter the user needs to have a security level equal to or higher than the corresponding security level of the parameter.

Security level	Description
0	Unprotected, but it is not possible to access the camera from outside without at least view rights.
1	View access right needed to access the parameter.
4	Operator access right needed to access the parameter.
6	Administrator access right needed to access the parameter.
7	Internal parameters that can only be changed by firmware applications or by root, editing the configuration files directly.

2. Valid values

The following valid values are used in this document:

Valid values	Description
An integer	Any number between -2147483647 ($-2^{31}-1$) and 2147483647 ($2^{31}-1$).



An unsigned integer	Any number between 0 and 4294967295 ($2^{32}-1$).
<m>	Any number starting from number m.
<m> ... <n>	Any number between number m and number n.
A string	Any string (valid characters: ISO 8859-1).
A domain name	A string limited to contain a domain name.
A host name	A string limited to contain a host name.
An IP address	A string limited to contain an IP address of the format xxx.xxx.xxx.xxx, where xxx is a number between 0 to 255. Example: 192.168.0.90
A MAC Address	A string limited to contain a MAC address of the format xx:xx:xx:xx:xx:xx, where xx is a hexadecimal value. Example: A8:55:6A:00:00:00
An e-mail address	A string limited to contain an e-mail address.
A URL/URI	A sting limited to contain a URL/URI.
A path	A string limited to contain a path.
A time	A string limited to contain a time of the format hh:mm:ss. Example: 17:31:14
A date	A string limited to contain a date of the format yyyy-mm-dd. Example: 2011-03-04
<value 1> <value 2> <value 3> ...	Enumeration, only the given values are valid. Example: yes no
<m><value> ...	<value><m> ...
Any number between m and n together with value.	



<n><value>	<value><n>	Example: 1Mbit ... 100Mbit
Read only		Only the default value is valid as value.
Auto generated		Automatically generated value, should not be changed manually.
Hardware dependent		The hardware decides the default value/the valid values.
Everything inside brackets		Description.

3. Syntax

http://<servername>/param.cgi?<parameter>=<value>[&<parameter>=<value>...]

4. Parameters

<parameter>=<value>	Values	Description
action=<string>	add, remove, update or list	Specifies the action to take. Depending on this parameter, various parameters may be set, as described in the following sections. The “add” and “remove” of actions are supported for Event group only.
group=<string>[,<string>...]	<group[.name]>[,<group[.name]>...]	Returns the values of the camera parameter which named <group>.<name>. If <name> is omitted, all the parameters of the <group> are returned. The camera parameters must be entered exactly as they are named in the camera or video server. Wildcard (*) can be used when listing parameters. See



		example below.If this parameter is omitted, all parameters in the device are returned.
--	--	--

Example: List the Network parameters.

```
http://myserver/param.cgi?action=list&group=Network.*
```

Example: List the all parameters of events.

```
http://myserver/param.cgi?action=list&group=Event.*
```

2. Brand

Contain information about the brand and name and type of the product.

[Brand]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Brand	3S	A string (Auto generated)	0/7	The brand of the product.
ProdFullName	3S IP CAMERA	A string (Auto generated)	0/7	The full name of the product.
ProdNbr	0	A string (Auto generated)	0/7	The product number.
ProdShortName	H264 IP CAMERA	A string (Auto generated)	0/7	The short name of the product.
ProdType	IP CAMERA	Video Server, Network Camera, Network Video Recorder (Auto generated)	0/7	The product type.
WebURL	http://www.3SVision.com.tw	A string (Auto generated)	0/7	The URL to visit for support and information about the product.

3. Network

Network interface settings. The parameters in this group (as opposed to the subgroups of this group) are static network settings. If the Network.BootProto parameter is "dhcp" these parameters may not be in use so always use the read-only parameters in the subgroups to retrieve actual network settings in use by the operating system.

[Network]

Parameter name	Default value	Valid values	Security level (get/set)	Description
BootProto	none	dhcp, none	6/6	Enable/disable dynamic IP address assignment.
DefaultRouter	192.168.0.254	An IP address	6/6	Default router/gateway used for connecting devices attached to different networks and network segments.
DNSServer1	0.0.0.0	An IP address	6/6	Primary Domain Name System server.
DNSServer2	0.0.0.0	An IP address	6/6	Secondary Domain Name System server.
IPAddress	192.168.0.20	An IP address	6/6	IP Address. The physical address of the device on the network.
SubnetMask	255.255.255.0	An IP address	6/6	Subnet mask. Divides the network.

4. PPPoE & DDNS

1. PPPoE

Network PPPoE interface settings. The parameters in this group PPPoE dial settings. If the Network.BootProto parameter is "dhcp" these parameters may not be in use so always use the read-only parameters in the subgroups to retrieve actual network settings in use by the operating system.

[Network.PPPoE]

Parameter name	Default value	Valid values	Security level (get/set)	Description
DialNow	No	yes, no	6/6	PPPoE dial now
DialOnBoot	No	yes, no	6/6	Enable/disable PPPoE dial on system boot
UserName		A string	6/6	PPPoE dial name
Password		A string	6/6	PPPoE dial password

2. DDNS

DDNS settings.

[Network.DDNS]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Active	disable	enable, disable	6/6	enable/disable ddns service
DdnsServer	http://www.dyndns.org	A url	6/6	The domain name server.



UserName		A string	6/6	Login account
Password		A string	6/6	Login password
DomainName		A string	6/6	Domain name

5. IP Filter

IP address filtering. These parameters are used to only accept connections from certain IP addresses or networks.

[Network.Filter]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Enabled	disable	enable, disable	6/6	Enable/disable IP address filtering.
Policy	deny	allow, deny	6/6	Allow or deny the addresses access to the device.
AcceptAddresses		A string (a space separated list of IP addresses and network addresses in the CIDR notation (IP address/netmask bits))	6/6	IP addresses filtering for incoming packets. Addresses allowed to pass through the filter. Example: 192.168.0.24 will add all the addresses in the range 192.168.1.1 to 192.168.1.254. Note: If accessing the device via a proxy server, the proxy server's IP address must be added to the list of allowed addresses.



6. RTP

Parameters related to multicast RTP.

[Network.RTP]

Parameter name	Default value	Valid values	Security level (get/set)	Description
StartPort	50000	1024 ... 65532	6/6	The RTP port range defines the range of ports from which the video/audio ports are automatically selected. This feature is useful if the product is connected to a NAT router with manually configured port mapping. Note: Each RTP session needs 4 ports, which means 4 ports for each unicast session (audio and video) or 4 ports for the multicast session in total.
EndPort	60000	1025 ... 65535	6/6	The RTP port range defines the range of ports from which the video/audio ports are automatically selected. This feature is useful if the product is connected to a NAT router with manually configured port mapping. Note: Each RTP session needs 4 ports, which means 4 ports for each unicast session (audio and video) or 4 ports for the multicast session in total.

[Network.RTP.R#]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Enabled	no	Yes,no	6/6	Enables Multicast RTP
VideoAddress	224.1.1.1	(224.1.1.1 ~ 239.255.255.255)	6/6	Video address for the multicast session
VideoPort	1234	(2~65534, Even)	6/6	The video multicast port is the port on which multicast messages are received. Members of a multicast group rely on messages broadcast to their multicast group address to communicate with one another.
VideoTTL	5	(1~255)	6/6	The video TTL limits the range of multicast packets. The TTL value is an integer between 0 and 255, inclusive. The larger the TTL, the greater the range.
AudioAddress	224.1.1.1	(224.1.1.1 ~ 239.255.255.255)	6/6	Audio address for the multicast session
AudioPort	1236	(2~65534, Even)	6/6	The audio multicast port.
AudioTTL	5	(1~255)	6/6	The audio TTL value.
EventAddress	224.1.1.1	(224.1.1.1 ~ 239.255.255.255)	6/6	Event address for the multicast session
EventPort	1238	(2~65534, Even)	6/6	The event multicast port.
EventTTL	5	(1~255)	6/6	The Event TTL value.

7. RTSP

Parameters needed by the RTSP daemon.

[Network.RTSP]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Port	554	554, 1024 ... 65535	6/6	The port number for the RTSP daemon.

8. UPnP

Enable/disable Universal Plug and Play and set the name to be displayed in UPnP-clients.

[Network.UPnP]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Enabled	yes	yes, no	6/6	Enables Universal Plug and Play.
FriendlyName	<product name> - <serial number>	A string	6/6	The name of the UPnP device.
SerialNumber	0000001	A string	0/7	The unit's serial number.
Manufacturer	3S	A string	0/7	The facturer name of the UPnP device.
ManufacturerURL	www.3SVision.com.tw	A string	0/7	The facturer URL of the UPnP device.
ModelDescription	3S IPCam	A string	0/7	The facturer description of the UPnP device.
ModelName	IPCam	A string	0/7	The mode name of the UPnP device.
ModelNumber	1.0	A string	0/7	The mode number of the UPnP device.
ModelURL	www.3SVision.com.tw	A string	0/7	The mode URL of the UPnP device.

1. Network.UPnP.NATTraversal

These parameters control NAT traversal functionality. NAT traversal is a technique that can be used to open up routers and firewalls to make devices on a LAN accessible from the Internet.



[Network.UPnP.NATTraversal]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Enabled	no	yes, no	6/6	Enables/disables NAT traversal.
ExternalIPAddress		An IP address	6/7	The external IP address of the NAT router. This value shall not be configured, it is set by the system itself.
Active	no	yes, no	6/7	This parameter is set to yes if NAT traversal was successful. This value shall not be configured, it is set by the system itself.
MinPort	32768	1 ... 65535	6/6	The first time NAT traversal is enabled, a random port between MinPort and MaxPort will be selected as the TCP port to map in the router. If port mapping is successful, that port will be used thereafter. You can limit the random range by setting MinPort and MaxPort.
MaxPort	65535	1 ... 65535	6/6	The first time NAT traversal is enabled, a random port between MinPort and MaxPort will be selected as the TCP port to map in the router. If port mapping is successful, that port will be used thereafter. You can limit the random range by setting MinPort and MaxPort.

9. SMTP

Parameters for the Simple Mail Transfer Protocol, for sending e-mail messages between mail servers.

[SMTP]

Parameter name	Default value	Valid values	Security level (get/set)	Description
FromEmail		An e-mail address	6/6	E-mail address of the individual or device from which the e-mail is sent.
MailServer1		An IP address or a host name	6/6	Primary mail server.
Port1	25	1 ... 65535	6/6	Which port number the Gmail SMTP server shall be listening on.
TestStatus		None or ok	6/6	Return Test Status for SMTP Server

1. SMTP.Authentication.A#

Parameters for SMTP authentication.

[SMTP.Authentication.A#] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
Enabled	no	yes, no	6/6	Enable/disable authentication.
UserName		A string	6/6	The user name for the mail server or the POP server.



Password		A string	6/6	The password for the mail server or the POP server.
TLSEnable	no	yes, no	6/6	The TLS for Gmail.



10. Log

Parameters for selecting log levels for the product.

[Log.System]

Parameter name	Default value	Valid values	Security level (get/set)	Description
MaxSize	100000	1000 ...100000	6/6	Specifies the maximum size for the system event log.
Critical	yes	yes, no	6/6	Enable/disable logging of critical messages.
Warning	yes	yes, no	6/6	Enable/disable logging of warning messages
Informational	yes	yes, no	6/6	Enable/disable logging of info messages.

[Log.Syslogd]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Enabled	no	yes, no	6/6	Enable/disable logging of System log Server.
Server		An IP address or a host name	6/6	System Log server.
Port	514	1 ... 65535	6/6	System Log server Port

11. Status LED

This group controls the behavior of the status LED.

[StatusLED]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Num	2	int	6/6	Number of led

[StatusLED.L#]

Parameter name	Default value	Valid values	Security level (get/set)	Description
FlashInterval	1	1 ... 30	6/6	The flash interval when StatusLED.Usage is flash.
Usage	FLASH	off, on, FLASH	6/6	Status LED behavior during normal operation. off = off. on = green. FLASH = flashes when image is displayed.

12. System

Parameters for HTTP access to the device.

[System]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Port	80	1 ... 65535	6/6	HTTP port number.
ProtViewer	password	password, anonymous	6/6	password = Password is required to access the view pages. anonymous = Anybody on the network can access the product's view pages (but not the Admin tools) in a browser, and without having to log in.
AnonymousPTZ	no	yes, no	6/6	yes = anonymous login allow to control camera no = anonymous login cannot allow to control camera
Auth	Basic	None, Basic, Digest	6/6	The authorization method for logging to HTTP server

13. Time

Common time information which tell the time zone, how date and time is synchronized and the offset related to the chosen time zone and Coordinated Universal Time, UTC.

1. Time

[Time]

Parameter name	Default value	Valid values	Security level (get/set)	Description
ServerDate		A date	6/6	The date (yyyy-mm-dd) when the device's time was set manually or synchronized with the computer.
ServerTime		A time	6/6	The time (hh:mm:ss) when the device's time was set manually or synchronized with the computer.
SyncSource	Product dependent	PC, NTP, None ¹	6/6	The source to synchronize the time with; PC, NTP or None (manually).
TimeZone	GMT	GMT-12, ... GMT-1, GMT, GMT+1, ... GMT+12	6/6	Time zone.
TimeZoneIndex	102	0 ~ 129	6/6	Time zone Index of City
UTCOffset		+12:00:00 ... +01:00:00	6/6	The UTC time is equal to the local time minus the UTC offset.



		00:00:00 -01:00:00 ... -12:00:00		
DaylightSavingTime	no		6/6	Daylight Saving Time: yes or no
DaylightSavingStartDate	0-0-0		6/6	Start Date: 1ST-Sunday-January (Daylight Saving Time)
DaylightSavingStartTime	02:00		6/6	Start Time: 02:00 (Daylight Saving Time)
DaylightSavingTimeOffset	01:00		6/6	The start time offset by 01:00.(ex: 02:00 to 03:00) (Daylight Saving Time)
DaylightSavingEndDate	0-0-0		6/6	End Date: 1ST-Sunday-January (Daylight Saving Time)

2. Time NTP

Contain parameters required when setting time and date with the NTP protocol.

[Time.NTP]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Server	0.0.0.0	An IP address or a host name	6/6	The NTP server to connect to when synchronizing the time in the device.
Port	123	554, 1024...65535	4/4	The port number of NTP group

14. JPEG/MJPEG/MPEG4/H.264

Image

Common image parameters used for all image configurations.

[Image]

Parameter name	Default value	Valid values	Security level (get / set)	Description
MaxViewers	10	1 ... 10	4/4	Max number of simultaneous viewers (does not affect multicast delivery).

* The default value for this parameter is product specific.

¹ Product-dependent. Check the product specification.

1. Image.l#.Appearance

Image appearance parameters (resolution, compression, rotation) for each image configuration.

[Image.l#.Appearance] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
Enabled	yes	yes, no	4/4	Enable/disable this encoderchannel.
Compression	40	0 ... 100	4/4	The level of image compression. High compression reduces the file size. Low compression produces optimum picture quality, but larger file sizes.
Resolution	1600x1200	IP Cam:	4/4	The image resolution.



	(IP Cameras) 704x480 (Video Servers)	1600x1200, 640x480, 320x240, 160x120 (sub stream) Video Server / DVR: 704x576 / 704x480, 352x288 / 352x240, 176x120 / 176x144		
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2. Image.I#.MPEG

Parameters related to the generation and format of the MPEG stream.

[Image.I#.MPEG] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
PCount ¹	15	1 ~ 150	4/4	The number of P frames per I frame.

* **Note:** The # is replaced with a group number starting from zero, e.g., Image.I0.MPEG.

¹ The GOV length can be calculated as: GOV length = ICount * (1 + PCount + (1 + PCount) * BCount)

3. Image.I#.RateControl

Parameters to control the bit rate (bandwidth) from the server.

[Image.I#.RateControl] *

Parameter name	Default value	Valid values	Security level (get/set)	Description





Mode	vbr	vbr, cbr	4/4	Specifies whether the rate controller operates in Variable Bit Rate (VBR) or constant bit rate (CBR) mode.
TargetBitrate	0	0 ... 10000	4/4	The target bit rate, in kbit/s, for CBR mode.

* **Note:** The # is replaced with a group number starting from zero, e.g. Image.I0.Stream.

4. Image.I#.Stream

Image streaming parameters for each image configuration.

[Image.I#.Stream] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
FPS	Product dependent	An unsigned integer	4/4	Limits the frame rate available to each viewer. 0 = unlimited frame rate. Note 1: That the viewer will actually get the configured frame rate cannot be guaranteed. Not exceeding the configured frame rate, however, is guaranteed. Note 2: When enabling Constant Bit Rate (the parameter Image.I#.RateControl.Mode is set to cbr) and setting the parameter Image.I#.RateControl.MaxFPS to a value, the lowest fps value will apply for the MPEG-4 stream.
Enabled	yes	yes, no	4/0	Enabled streaming out.

* **Note:** The # is replaced with a group number starting from zero, e.g. Image.I0.Stream.

5. Image.I#.Text





Image text overlay parameters for each image configuration.

[Image.l#.Text] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
ClockEnabled	no	yes, no	4/4	Shows the time at the Position in the image.
DateEnabled	no	yes, no	4/4	Shows the date at the Position in the image.
String		A string	4/4	The text to show at the Position in the image.
TextEnabled	no	yes, no	4/4	Shows the String at the Position in the image.
TextPos		LT,RT,LB or RB	4/4	The position of the text.
BGcolor	0xFFFFFFFF	0x000000 ~ 0xFFFFFFFF	4/4	Background color of the text. A HEX based string.
FGcolor	0	0x000000 ~ 0xFFFFFFFF	4/4	Foreground color of the text.
DatePos		LT,RT,LB or RB	4/4	The position of the date.
AlphaBlending	0	0, 50, 90	4/4	Alpha Blending of overlay.

* **Note:** The # is replaced with a group number starting from zero, e.g. Image.l0.Text.



6. Image.l#.PreProc

Parameters related to the generation and format of the PreProc.

[Image.l#.PreProc]

Parameter name	Default value	Valid values	Security level (get /set)	Description
Flip	no	yes, no	4/4	Set the position of the camera.
Mirror	no	yes, no	4/4	Set the position of the camera.

15. ImageSource.l#.Sensor

1. ImageSource.l#.Sensor

Parameters for each CCD/CMOS image source. This parameter group is product dependent and only available in network cameras. Check the product specification for supported parameters, default values and valid values.

[ImageSource.l#.Sensor]

Parameter name	Default value	Valid values	Security level (get / set)	Description
Sharpness	50	0 ... 100	4/4	The image sharpness.
Brightness	50	0 ... 100	4/4	The image brightness.
Hue	50	0 ... 100	4/4	The image color level.
Contrast	50	0 ... 100	4/4	The image contrast.
Saturation	50	0...100	4/4	The image saturation
Flickerless	50	0, 50, 60	4/4	The image flickerless
ScanMode		Full/Partial	4/4	The image scan mode.
TVStandard	CMOS	CMOS, CCD	4/0	Readonly parameter



2. ImageSource.I0.DayNight

[ImageSource.I0.DayNight]

Parameter name	Default value	Valid values	Security level (get / set)	Description
Mode	auto	auto / manual / external	4/4	Day/Night switch mode
ManualStatus	day	day / night	4/4	Day/Night manual switch status
SwitchDelay	10	0...15	4/4	Day/Night switch delay time.
SwitchLevel	mid	high / mid / low	4/4	Day/Night switch level.
AmbiguitySuppression	yes	yes, no	4/4	Day/Night ambiguity suppression

3. ImageSource.I0.AE

[ImageSource.I0.AE]

Parameter name	Default value	Valid values	Security level (get / set)	Description
BacklightEnabled	no	yes/ no	4/4	Enabled Backlight
Backlight	0	An unsigned integer	4/4	Backlight state.
Mode	(null)	ALC	4/4	Backlight Compensation
Shutter	2	An unsigned integer	4/4	Slow Shutter
ShutterMin	yes	Yes, no	4/4	Shutter min
Gain	50	An unsigned integer	4/4	AE Gain



GainMin	(null)	An unsigned integer	4/4	AE Gain min.
PresetDayShutter	(null)	An unsigned integer	4/4	Preset Day Shutter.
PresetNightShutter	(null)	An unsigned integer	4/4	Preset Night Shutter.
PresetNightGain	(null)	An unsigned integer	4/4	Preset Night Gain.



16. PTZ preset position

1. PTZ.PresetPos

A dynamic parameter group PTZ.PresetPos.P# is created for each new preset position. # merely denotes the number of the dynamic parameter group and has no connection to any preset position numbers mentioned below.

Dynamic parameter groups, each representing a preset position.

[PTZ.PresetPos.P#]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Pos	None	A : delimited string with the following content: <Name>: A valid preset position name <Type>: server, device <No>: 0, ... for <Type> = server, -1 for <Type> = device <DevicePresetNo>: An integer <DriverNo>:	1/7	Holds all necessary information about the preset position. <Name>: The name of the preset position. <Type>: The type of preset position, "server" for server preset positions, "device" for device preset positions. <No>: The number of the server preset position, -1 for device preset positions. <DevicePresetNo>: The number of the device preset position, not significant if <Type> = "server" and the position is not emulated by a driver preset position. <DriverNo>: The number (index) of the concerned driver. <CamNo>: The number of the concerned camera. <Pan>: The pan position if known, else 10000. <Tilt>: The tilt position if known, else 10000.



		0, ... <CamNo>.0, ... <Pan>: -180 ... 180 ¹ , 10000 <Tilt>: -180 ... 180 ¹ , 10000 <Zoom>: 1 ... 9999 ¹ , 10000 <Focus>: 1 ... 9999 ¹ , 10000 <Iris>: 1 ... 9999 ¹ , 10000 <Home>: true, false		<Zoom>: The zoom position if known, else 10000. <Focus>: The focus position if known, else 10000. <Iris>: The iris position if known, else 10000. <Home>: true if the preset position is the home position for the camera, else false. Example of a server preset position (number 3) emulated by a device preset position (number 12): Entrance~server:3:12:1: 2:45:-10:10000:10000: 10000:false
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2. PTZ.Tour

A dynamic parameter group PTZ.Tour.T# is created for each new tour sequence.

[PTZ.Tour.T#]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Type	autopan	autopan, tour	1/7	Current tour number
ActiveTour	none	A string	1/7	Enabled specified tour name
Active	no	yes, no	1/7	The active state of this tour.
Speed	none	0~100	1/7	controls the rotation speed of the camera

[PTZ.Tour.P#]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Camera	1	1...	1/7	tour belong which camera
Name		A string	1/8	Tour name
Sequence	none	<preset1>: 1 ...	1/7	1:2: means preset tour sequence: preset 1 -> preset 2
Dwelling	0	Unsigned integer	1/7	How long the event should trigger in format "seconds". Max 60 sec



3. PTZ.Recover

This function to select a preset location to which the camera will return when the PTZ function is not operated any more.

[PTZ.Recover]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Enabled	no	yes, no	no	Enabled the function of PTZ.Recover.
Time	none	1~720	1/7	to define the time interval at which the camera will return to the preset location when the PTZ function is not operated any more.(minutes)
Preset	none	A valid preset position name	1/7	The active state of this tour.
Maxspeed	none		1/7	Setting max speed of PTZ.Recover.



4. PTZ.Drivers

List the PTZ driver.

[PTZ.Drivers.D#]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Driver	none	<string>	6/7	The list of driver name

Example:

PTZ.Drivers.D0.Driver="Pelco-D"

PTZ.Drivers.D1.Driver="Pelco-P"

5. PTZ.CamPorts

PTZ Driver Manager.

[PTZ.CamPorts.C#]

Parameter name	Default value	Valid values	Security level (get/set)	Description
CamDriver	none	<string>	6/7	The Cam driver of camera
Address	0	0...	6/7	The driver Address of camera
Name	none	<string>	6/7	The driver name of camera

17. Motion Detection

Contain dynamic parameters, which define the properties of a Motion Detection window.

[Motion] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
Enabled	no	yes, no	4/4	

[Motion.M#] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
Left	200	0 ... 9999	4/4	The coordinate for the left boundary of the rectangular motion detection window. The full value range is related to the full image width and 0 is counted from the left hand side of the image.
Right	4000	0 ... 9999	4/4	The coordinate for the right boundary of the rectangular motion detection window. The full value range is related to the full image width and 0 is counted from the left hand side of the image.
Top	200	0 ... 9999	4/4	The coordinate for the upper boundary of the rectangular motion detection window. The full value range is related to the full image height and 0 is counted from the upper side of the image.



Bottom	4000	0 ... 9999	4/4	The coordinate for the bottom boundary of the rectangular motion detection window. The full value range is related to the full image height and 0 is counted from the upper side of the image.
Sensitivity	90	0 ... 100	4/4	This tunes the "object difference from the background"-sensitivity, i.e. difference in terms of color and/or structure. A high value \detects even very small changes and can e.g. trigger on image noise if set too high. A very low value requires on the other hand a very dramatic change with e.g. a dark object appearing in an almost white scene (or vice versa).
Enabled	no	yes, no	4/4	

* **Note:** The # is replaced with a group number starting from zero, e.g. Motion.M0.

18. Alarm I/O

1. Input.I#

Parameters for hardware input(s).

[Input]

Parameter name	Default value	Valid values	Security level (get/set)	Description
NbrOfInputs	Hardware specific	An unsigned integer (Read only)	0/7	Number of inputs.

Parameters for hardware input(s).

[Input.I#] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
Name	Input #+1	A string	4/6	The name of the input.
Trig	closed	open, closed	4/6	Determines when to trig.

* **Note:** The # is replaced with a group number starting from zero, e.g. Input.I0.



2. Output

Parameters for hardware output(s).

[Output]

Parameter name	Default value	Valid values	Security level (get/set)	Description
NbrOfOutputs	Hardware specific	An unsigned integer (Read only)	0/7	Number of outputs.

Parameters for hardware output(s).

[Output.O#] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
Name	Output #+1	A string	4/6	The name of the output.
Active	closed	open, closed	4/6	The active state of the output.

* **Note:** The # is replaced with a group number starting from zero, e.g. Output.I0.

19. Events

This group defines an event, which is a set of parameters describing how and when the product performs certain actions.

[Event]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Records.Repetition	5	An unsigned integer	4/4	Set the number of repeat play of applies only to storage function.

[Event.E#] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
Name	NewEvent	A string	4/4	The name of the event.
Type	T	S, T	4/4	Scheduled or Triggered event.
Enabled	yes	yes, no	4/4	Event enabled (disabled events are never triggered).
Active	no	yes, no	4/4	If the event is currently triggered.
Priority	1	0, 1,2	4/4	Execution priority: 0=low. 1=normal.2=high.
HWInputs	xxxx	nnxx, where n = {x,0,1,2}	4/4	Hardware input trigger pattern. x = do not trigger. 0 = trigger on inactivation. 1 = trigger on activation.



				2 = trigger on activation change. Example 1: "1xxx" means trigger when digital input 1 is activated. Example 2: "xx0x" means trigger when digital input 3 is inactivated. Example 3: "x2xx" means trigger when digital input 2 state is changed. Example 4: "1xx1" means trigger when digital input 1 and 4 are activated. Example 5: "xxxx" means don't trigger on hardware inputs. <i>Note: Cannot be combined with SWInputs, use either SWInput or HWInputs.</i>
SWInput		A string	4/4	Software input trigger pattern. Virtual Input (manual): IO<no>:<trigger> where the number can be an integer starting from 5, and the trigger can be "/" or "H" for activated and "/" or "L" for inactivated. Example 1: "IO5:H" means trigger when virtual input 5 is active. Example 2: "IO6:L" means trigger when virtual input 6 is inactive. BOOT:/ means trigger on boot. Video loss: V<channel no>:\ x = trigger when video is lost on any video channel. Example 1: "V0:\" means trigger when video is lost on video channel 1. Example 2: "Vx:\" means trigger when video



				is lost on any video channel. Motion detection: M<motion window no>:<trigger> where trigger can be: / = when motion starts. \ = when motion stops. x = when motion starts or stops. Example 1: "M1:/" means trigger when motion is detected for motion window 1. Example 2: "M1:x" means trigger when motion starts or stops for motion window 1. NETLOSS : NETLOSS:/ PIR : PIR:/ "" means never trigger on software inputs. <i>Note: Cannot be combined with HWInputs, use either SWInput or HWInputs.</i>
Image	0	0-3	4/4	Image configuration to grab video from
Weekdays	1111111	A string	4/4	Pattern of weekdays when the event should trigger. Example 1: "0111110" means trigger on Monday ... Friday. Example 2: "1000000" means trigger on Sunday.
Starttime	00:00	A time	4/4	Time when the event should start to trigger in format "hh:mm". Example 1: "07:30" means trigger at 7:30 am. Example 2: "19:30" means trigger at 7.30 pm.



Duration	0	A time	4/4	How long the event should trigger in format "hours:minute". Max 168:00 hours.
IncludePreTrigger	no	yes, no	4/4	Use pre-trigger buffer.
PreTriggerSize	0	An unsigned integer	4/4	Size of the pre-trigger buffer (in number of seconds).
IncludePostTrigger	no	yes, no	4/4	Use post-trigger buffer.
PostTriggerSize	0	An unsigned integer	4/4	Size of the post-trigger buffer (in number of seconds).
IncludeBestEffort	no	yes, no	4/4	Use best effort duration.
BestEffortDuration	0	An unsigned integer	4/4	Best effort duration (in number of seconds). If IncludeBestEffort =yes and BestEffortDuration =0, the duration will be as long as the event is triggered.
FileName	img.jpg img.#.avi	A string	4/4	Base file name for uploaded files. e.g.: img.0.avi for main stream, img.1.avi for sub stream, img.2.avi for motion jpeg
Suffix	%y-%m-%d_%H-%M-%S-%f	A string	4/4	Suffix to base name for uploaded files. Wildcard patterns, e.g. %H, %M, %S, etc, may be used in the suffix. See the product's on-line help pages for more info on wildcard patterns.
MaxSequenceNumber	0	An unsigned integer	4/4	The maximum value of SequenceNumber. At this value the counter will wrap to 0.
SnapshotTimeOffset	0	An unsigned integer	4/4	Ahead of time taking Snapshot.



SnapshotFrames	3	An unsigned integer	4/4	Image Frames of Snapshot.
SnapshotInterval	500	An unsigned integer	4/4	Snapshot interval.
AutoCreatedFolders		Yes, no	4/4	Auto create folders for storage device.
FolderFormat			4/4	Set Folder Format.
StorageIncludePreTigger	No	Yes, no	4/4	Enabled pre-trigger buffer times.
StoragePreTriggerSize	5	An unsigned integer	4/4	Set pre-trigger buffer times (0~10sec)
StorageIncludePostTrigger	No	Yes, no	4/4	Enabled post-trigger buffer times.
StoragePostTriggerSize	5	An unsigned integer	4/4	Set post-trigger buffer times (0~10sec)
StorageIncludeBestEffort	No	Yes, no	4/4	Enabled Continue video upload.
StorageBestEffortDuration	10	An unsigned integer	4/4	Continue video upload times (5~10sec)

* **Note:** the # is replaced with a group number, e.g. Event.E0

1. Event FTP Actions

This group defines an action that uploads files to an FTP server.

[Event.E#.Actions.A#] *





Parameter name	Default value	Valid values	Security level (get/set)	Description
Type	U	U	4/4	Type of action. U = Upload.
Protocol	FTP	FTP	4/4	Protocol.
Server		F0 ... Fn (n = number of FTP event servers - 1)	4/4	FTP server ID. Refers to a parameter group under EventServers.FTP. Example: "F0" refers to the parameter group EventServers.FTP.F0

* **Note:** the # is replaced with a group number, e.g. Event.E0.Actions.A0.

2. Event HW Actions

This group defines an action that controls a digital output.

[Event.E#.Actions.A#] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
Type	N	N	4/4	Type of action. N = Notification.
Protocol	HW	HW	4/4	Protocol.
Output	0	1...4	4/4	Output number to activate.
Duration	0	An unsigned integer	4/4	How long the output should be active in seconds, 0 means that the output should be active for as long as the event is triggered.

* **Note:** the # is replaced with a group number, e.g. Event.E0.Actions.A0.

3. Event SMTP Actions

This group defines an action that sends mail to a mail server.

[Event.E#.Actions.A#] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
Type	N	N, U	4/4	Type of action. N = Notification. U = Upload.
Protocol	SMTP	SMTP	4/4	Protocol.
EmailTo		A string	4/4	E-mail address.
Subject		A string	4/4	Subject line. Possible to use dynamic event notification: #e = The event name. #E = The event description. Specified in the file /etc/event_desc.list located in the product's file system. #w = The motion detection window. #t = The trigger type and value. Also other format codes such as file naming and date/time formats can be used.
Message		A string	4/4	Message body. Possible to use dynamic event notification: #e = The event name. #E = The event description. Specified in the file /etc/event_desc.list located in the product's file system. #w = The motion detection window. #t = The trigger type and value. Also other format codes such as file naming and date/time formats can be used.



ImagesPerMail	10	An unsigned integer	4/4	Max number of images to upload in one e-mail.
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* **Note:** the # is replaced with a group number, e.g. Event.E0.Actions.A0.

4. Event PTZ Actions

This group defines an action that makes a camera go to a preset PTZ position.

[Event.E#.Actions.A#] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
Type	N	N	4/4	Type of action. N = Notification.
Protocol	PTZ	PTZ	4/4	Protocol.
Preset		P0 ... Pn (n = max number of preset positions - 1)	4/4	Which PTZ.PresetPos.P# to move to.
Home	No	yes, no	4/4	Whether to return to the home position after the event.

* **Note:** the # is replaced with a group number, e.g. Event.E0.Actions.A0.

5 Event HTTP Actions

This group defines an action that uploads files to an HTTP server, or sends notifications to an HTTP server.

[Event.E#.Actions.A#] *





Parameter name	Default value	Valid values	Security level (get/set)	Description
Type	N	N, U	4/4	Type of action. N = Notification. U = Upload.
Protocol	HTTP	HTTP	4/4	Protocol.
Server		H0 ... Hn (n = number of HTTP event servers -1)	4/4	HTTP server ID. Refers to a parameter group under root.EventServers.HTTP. Example: "H0" refers to the parameter group root.EventServers.HTTP.H0.
Message		A string	4/4	Message to send. Possible to use dynamic event notification: #e = The event name. #E = The event description. Specified in the file /etc/event_desc.list located in the product's file system. #w = The motion detection window. #t = The trigger type and value. Also other format codes such as file naming and date/time formats can be used.
CustomParams		A string	4/4	Custom parameters to add to URL. Example: "foo=bar". Spaces are not allowed in this field and all text must be URI-encoded (RFC2396). Example: to set the CGI parameter 'example' to 'Y & Z' enter example=Y+%26+Z in this field.

* **Note:** the # is replaced with a group number, e.g. Event.E0.Actions.A0.

6. Event TCP Actions

This group defines an action that sends notifications to a TCP/IP server.





[Event.E#.Actions.A#] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
Type	N	N	4/4	Type of action. N = Notification.
Protocol	TCP	TCP	4/4	Protocol.
Server		T0 ... Tn (n = number of TCP event servers -1)	4/4	TCP server ID. Refers to a parameter group under root.EventServers.TCP. Example: "T0" refers to the parameter group root.EventServers.TCP.T0.
Message		A string	4/4	Message to send. Possible to use dynamic event notification: #e = The event name. #E = The event description. Specified in the file /etc/event_desc.list located in the product's file system. #w = The motion detection window. #t = The trigger type and value. Also other format codes such as file naming and date/time formats can be used.

* **Note:** the # is replaced with a group number, e.g. Event.E0.Actions.A0.

7. Event Day/Night Actions

This group defines an action for Day/Night actions.

[Event.E#.Actions.A#] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
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Type	N	U, N	4/4	Type of action. N = Notification
Protocol	DN	DN	4/4	Protocol.

8. Event LED Actions

This group defines an action for LED actions.

[Event.E#.Actions.A#] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
Type	N	U, N	4/4	Type of action. N = Notification
Protocol	LED	LED	4/4	Protocol.

20. EventServers

This group defines an EventServers, which is a set of parameters describing how and when the product performs certain actions.

1. EventServers.FTP.F#

This group defines an FTP server that can be used by an event to upload files to.

[EventServers.FTP.F#] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
Name	NewFTPServer	A string	4/4	A descriptive name.
Address		An IP address or a host name	4/4	IP address or host name of the server
Login		A string	4/4	FTP user name
Password		A string	4/4	FTP password.
UploadPath		A string	4/4	Directory where uploaded files go.
Port	21	0 ... 65535	4/4	FTP port.
Passive	no	yes, no	4/4	Use passive FTP.

* **Note:** the # is replaced with a group number starting from zero, e.g. EventServers.FTP.F0.

2. EventServers.HTTP.H#



Description: This group defines an HTTP server that can be used by an event to upload files to or send notification messages to.

[EventServers.HTTP.H#] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
Name	NewHTTPServer	A string	4/4	A descriptive name.
Address		A string	4/4	URL to the server, including name of CGI script to handle the request. Example: "http://192.168.254.10/cgi-bin/upload.cgi".
Login		A string	4/4	HTTP user name
Password		A string	4/4	HTTP password.
Proxy		An IP address	4/4	Proxy address.
ProxyPort		0 ... 65535	4/4	Proxy port number.
ProxyLogin		A string	4/4	Proxy user name.
ProxyPassword		A string	4/4	Proxy password.

* **Note:** the # is replaced with a group number starting from zero, e.g. EventServers.HTTP.H0.

3. EventServers.TCP.T#

Description: This group defines a server that can be used by an event to send TCP/IP notification messages to.

[EventServers.TCP.T#] *

Parameter	Default value	Valid values	Security level	Description
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name			(get/set)	
Name	NewTCPServer	A string	4/4	A descriptive name.
Address		An IP address or a host name	4/4	IP address or host name of the server.
Port		0 ... 65535	4/4	TCP port number to use.

* **Note:** the # is replaced with a group number starting from zero, e.g. EventServers.TCP.T0.

4. EventServers.UDP.U#

Description: This group defines a server that can be used by an event to send UDP notification messages to.

[EventServers.UDP.U#] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
Name	NewUdpServer	A string	4/4	A descriptive name.
Address		An IP address or a host name	4/4	IP address or host name of the server.
Port		0 ... 65535	4/4	UDP port number to use.

* **Note:** the # is replaced with a group number starting from zero, e.g. EventServers.UDP.U0.

21. Notification

Parameters for sending notification when the IP address is changed.

Notify

Notifications Period for FTP, SMTP, HTTP notify function.

Parameter name	Default value	Valid values	Security level (get/set)	Description
Period	5	1 ~ 120	6/6	Setting notifications period (1~120 seconds).

1. Notify.FTP

Parameters for notification by FTP.

[Notify.FTP]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Enabled	no	yes, no	6/6	Enabled sending of notifications by FTP.
HostName		A hostname	6/6	The IP address or hostname of the FTP server.
PassiveMode	no	yes, no	6/6	Establish a passive FTP connection.
Password		A string	6/6	The password for logging on to the FTP server.
Port	21	0 ... 65535	6/6	FTP port.
UploadPath		A string	6/6	The path to where the notification file will be saved on the FTP server.



UserName		A string	6/6	The username for logging on to the FTP server.
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2. Notify.SMTP

Parameters for notifications by e-mail.

[Notify.SMTP]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Enabled	no	yes, no	6/6	Enabled sending notifications by e-mail.
FromEmail		An e-mail address	6/6	The e-mail address to include in the "From" field in the e-mail notification.
Subject		A string	6/6	The message to include in the "Subject" field in the e-mail notification.
ToEmail		An e-mail address or a list of e-mail addresses separated by ;	6/6	The recipient(s) for the e-mail.
MailServer		An IP address or a host name	6/6	Primary mail server.
AuthEnabled	no	yes, no	6/6	Enable/disable authentication.
UserName		A string	6/6	The user name for mail or pop server.
Password		A string	6/6	The password for mail or pop server.
WeakestMethod	Login	Login, Plain, CRAM-MD5, DIGEST-MD5	6/6	The weakest method allowed for mail server login.



3. Notify.HTTP

Parameters for notifications by HTTP

[Notify.HTTP]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Enabled	no	yes, no	6/6	Enabled sending notifications by e-mail.
Url		A string	6/6	A url of http server
Custom		A string	6/6	Custom parameters to add to URL. Example: "foo=bar". Spaces are not allowed in this field and all text must be URI-encoded (RFC2396). Example: to set the CGI parameter 'example' to 'Y & Z' enter example=Y+%26+Z in this field.
UserName		A string	6/6	The user name for the HTTP server.
Password		A string	6/6	The password for the HTTP server.
Proxy		An IP address or a host name	6/6	Proxy server
ProxyPort		0 ... 65535	6/6	Proxy server port
ProxyUser		A string	6/6	The user name for the proxy server.
ProxyPass		A string	6/6	The password for the proxy server

22. Properties

Contains information about the firmware and system of the product. It also contains information about product dependent functionality and functionality that have no ordinary parameters. All user levels should be able to access the property parameters.

Note: The Properties parameters are product dependent. If a parameter does not exist, the functionality is not supported.

1. Properties.Firmware

[Properties.Firmware]

Parameter name	Default value	Valid values	Security level (get/set)	Description
BuildDate		A string	0/x	The build date for the current firmware in use.
Model		A string	0/x	The model name for the current firmware in use
DisplayModel		A string	0/x	The display model name for the current firmware in use
BuildNumber		An unsigned integer	0/x	The build number for the current firmware in use.
Version		A string	0/x	The firmware version in use.

2. Properties.Hardware

[Properties.Hardware]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Version	00	A string	0/x	The hardware version in use.



3. Properties.FrontEnd

[Properties.FrontEnd]

Parameter name	Default value	Valid values	Security level (get/set)	Description
ActiveParameters	/Brightness/Contrast /Sharpness/Hue/Saturation/	A string	0/x	The front end function of device.

4. Properties.RTSP

[Properties.RTSP]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Paths	/h264/h264-1/mjpeg/3gpp/audio/event	A string	0/x	The CGI for RTSP Path query, user can to get supported RTSP paths

5. Properties.Registration

[Properties.Registration]

Parameter name	Default value	Valid values	Security level (get/set)	Description
SerialNumber	none	A string	0/x	The Serial Number of 3S product.

6. Properties.Audio

[Properties.Audio]

Parameter name	Default value	Valid values	Security level (get/set)	Description
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Mode	Full-Duplex/Half-Duplex/Simplex-In/Simplex-Out/None	A string	0/x	The work mode of Audio.
InFormat	/G726/G711a/G711u/AMR	A string	0/x	The Audio in Codec.
OutFormat	None	A string	0/x	The Audio out Codec.

7. Properties.Image

[Properties.Image]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Format	/h264/mjpeg	A string	0/x	The Image format list of 3S product.
Mode	/Full /Partial	A string	0/x	The Sensor mode of 3S product. Full:1600x1200,640x480, 320x240,160x128 Partial:1280x720,640x352, 320x176,192x112
Resolution	/1600x1200,640x480, 320x240,160x128/1280x720,640x352,320x176,192x112	A string	0/x	The Image Resolution list of 3S product.

8. Properties.ImageSource

[Properties.ImageSource]

Parameter name	Default value	Valid values	Security level (get/set)	Description
DCIris	none	yes / no	0/x	The product has support DC Iris



9. Properties.Motion

[Properties.Motion]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Enabled	yes	yes / no	0/x	Enabled the Motion Detection.
Amount	3	An unsigned integer	0/x	The amount of Motion Detection.

10. Properties.Blind

[Properties.Blind]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Enabled	none	yes / no	0/x	Enabled the Blind Detection.
Amount	3	An unsigned integer	0/x	The amount of Blind Detection.

11. Properties.Privacy

[Properties.Privacy]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Enabled	none	yes / no	0/x	Enabled the Privacy Mask.
Amount	3	An unsigned integer	0/x	The amount of Privacy Mask.

12. Properties.PTZ

[Properties.PTZ]

Parameter name	Default value	Valid values	Security level (get/set)	Description
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Enabled	none	yes / no	0/x	Enabled the PTZ.
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23. Wireless

1 Network.Wireless

Parameters for WLAN (802.11b) settings. To setup these parameters, check your wireless access point and use same settings in your 3S device. These parameters are also in a text file, CONFIG.TXT, accessible over USB.

[Network.Wireless]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Enabled	Yes	Yes, no	6/6	Enabled wireless network.
Mode	Infra	Infra/Adhoc	6/6	Set wireless network mode.
ESSID		A string, up to 32 alphanumeric characters are accepted, but no space characters.	6/6	The name must be exactly the same as used in the wireless access point, or the connection will not be established. ESSID is called SSID by some vendors.
BootProto	dhcp	none / dhcp	6/6	DHCP
DefaultRouter	192.168.0.254		6/6	Default Gateway
IPAddress	192.168.0.21		6/6	IPAddress
SubnetMask	255.255.255.0		6/6	Subnet mask
Channel	11	An unsigned integer	6/6	Wireless Channel.
MACAddress	none	A MAC Address	6/6	MAC Address
DNSServer1	168.95.1.1		6/6	DNS



1.1 Network.Wireless.WEP

Parameters for WEP encryption of wlan (802.11b). To setup these parameters, check your wireless access point and use same settings in your 3S device. These parameters are also in a text file, CONFIG.TXT, accessible over USB.

[Network.Wireless.WEP]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Enabled	no	yes, no	6/6	Enable/disable WEP encryption over the wireless link.
AuthMode	OPEN	WEPAUTO / OPEN / SHARED / WPAPSK / WPA2PSK	6/6	Authentication Type of wireless network.
KeyLength	128	64, 128	6/6	Set the strength of the wireless encryption.
GenerationMethod	manual	manual, ASCII, passphrase	6/6	This parameter must tell which of the parameters below that is used and how to interpret them. Manual hex always works, while ASCII and passphrase are easier to remember.
Key1		A string	6/6	The keys must match the keys in the wireless access point. They could either be in hex format or in ASCII and must match parameter GenerationMethod, see above. Hex (manual) - the string must be exactly 10 hex characters for 64-bit WEP and 26 hex characters for 128-bit WEP. (Hex chars are 0123456789ABCDEF) ASCII - The string must be exactly 5 characters for 64-bit WEP and 13 characters for 128-bit WEP.
Key2		A string	6/6	
Key3		A string	6/6	
Key4		A string	6/6	



WPAPSK			6/6	Password for WPA.
ActiveKey	1	1 ... 4	6/6	Which key to use when transmitting. The key should be changed every now and then, to increase the security of the wireless connection.
EncryptType	WEP	WEP / TKIP / AES	6/6	Encryption algorithm for wireless network.

1.2 Network.Wireless.AP

Get Wireless network AP information.

[Network.Wireless.AP.AP#]

Parameter name	Default value	Valid values	Security level (get/set)	Description
BSSID		A MAC Address	6/x	The AP MAC Address.
SSID		A string	6/x	The wireless AP name.
MODE		Managed / Adhoc	6/x	The AP work mode.
CHANNEL		An unsigned integer	6/x	The AP Channel
ENCRYPTION		on, off	6/x	Get Encryption information.
QUALITY		An unsigned integer	6/x	Link quality
ENCTYPTIONTYPE		None 、 WEP 、 WPA-PSK/TKIP 、 WPA-PSK/AES 、 WPA2-PSK/TKIP 、 WPA2-PSK/AES	6/x	Get Encryption type.

24. Audio

Audio

Common audio parameters used for all audio configurations.

[Audio]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Mode	Full-Duplex	Full-Duplex Half-Duplex Simplex None	1/4	The type of talk between client and server
Mode ¹	noaudio	noaudio, monopc, 48kpcm	4/4	

1. Audio.A#.Decoder

The upload audio configuration.

[Audio.A#.Decoder] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
Codec	G711a	G711a, G711u, G726/32, G726/24	4/4	The codec of audio.
Codec ¹	none	none, ulaw, alaw	4/4	

- **Note:** the # is replaced with a group number starting from zero, e.g. Audio.A0.Decoder.



2. Audio.A#.Encoder

The name of the audio configuration, which audio source it is connected to and whether it should be enabled or not.

[Audio.A#.Encoder] *

Parameter name	Default value	Valid values	Security level (get/set)	Description
Codec	G711a	G711a, G711u, G726/32 G726/24	4/4	The codec of audio.

Note: the # is replaced with a group number starting from zero, e.g. Audio.A0.Encoder.



25. COM

Common port parameters used for open port configurations.

[COM]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Type	RS485	RS485 or RS232	4/7	Type of com port
BaudRate	9600	An unsigned integer	4/7	Baud rate of com port
DataBit	8	7,8	4/7	Com port setting
Parity	None	None, Odd or Even	4/7	Com port setting
StopBit	1	1,2	4/7	Com port setting
Timeout		An unsigned integer	4/7	Time out Setting

26. SAMBA

This group defines an action that uploads files to an Samba server.

[SAMBA]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Testing	Set only	yes, no	6	Test for Samba Server
Active	no	yes, no	4/6	Enable/Disable Samba Client
Enabled	no	yes, no	4/6	Enable/Disable Samba Authentication
UserName		A string	4/6	Login Account
Password		A string	4/6	Login Password
FolderPath		A string	4/6	The path where the recording file will be saved on the Samba Server.
Recycle	Yes	yes, no	4/6	When yes, system will auto delete old files when used size over than RemainFolderSize
RemainFolderSize		A string	4/6	System will auto reserve Remain Folder Size (MB) for Samba when recording.
FolderAvailableSize	Get only	0~100	4/6	Folder available size for Samba .
FolderUsedSize	Get only	0~100	4/6	Folder used size for Samba.



27. PIR

This group defines an action for PIR Sensor.

[Sensor.PIR]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Mode	auto	auto / manual / external	4/6	PIR mode
ManualStatus	on	on / off	4/6	PIR status
LightingDelay	3	0....15	4/6	Lighting delay



Release note:

1.6	2010/12/23	Image.I0.Appearance.Resolution
1.5	2010/8/25	Modify document format
1.4	2010/8/3	Properties.RTSP.Paths
1.3	2010/6/30	Event.E#.FileName
1.2	2010/6/23	Network.PPPoE, RTSP
1.0	2010/5/27	Created