

## Smart Tools User Manual

Milesight Technology Co.,Ltd.

V2.01





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## **Chapter I Introduction**

#### **1.1 Milesight Smart Tools Introduction**

Milesight Smart Tools is a powerful assisting software which is capable of learning the network environments and automatically finding Milesight network cameras and network video recorders connected in the LAN. It provides you a quick way to modify devices settings and do firmware upgrade. It is highly recommended for multiple Milesight devices configuration. It also can be used for calculating the matching number of camera, network video recorder and disk space.

#### **1.2 Key Features**

- ♦ Innovative UI design
- ♦ Integrated IPC Tools, NVR Tools and Calculators, easy to install and use
- ♦ Smart devices discovery and filter
- ♦ Efficient video and image parameters configuration to cameras in a group
- ♦ Convenient network setup for cameras, like IP address, DDNS and so on
- Useful network modification and connection status display for network video recorders
- ♦ Quick calculation for the matching number of camera, network video recorder and disk space
- ♦ Simple batch firmware upgrade for both Milesight cameras and network video recorders





### **Chapter II Installation**

#### 2.1 System Operating Environment

OS: Windows XP/7/8/10/Vista/Server 2000/Server 2008 CPU: 1.66GHZ or faster Memory: 1GB or more Graphic memory: 128MB or more Internet protocol: TCP/IP

#### 2.2 Installation Guide

Run the Installation file and install the programs on your computer by following the on-screen instructions. After finishing installation, you will find the program on the start menu or on the desk.

Step1: Select language and click the 'OK' button;

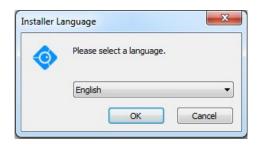


Figure 2-1 Select a language

**Step2:** Click the 'Next' button;



Figure 2-2 Installation





Step3: Select the destination folder where Milesight Smart Tools will be installed;

Choose Install Location	
Choose the folder in which to instal	ll Smart Tools.
Setup will install Smart Tools in the and select another folder. Click Nex	following folder. To install in a different folder, click Browse xt to continue.
Destination Folder	
Destination Folder           D:\Smart Tools\	Browse
	Browse
D:\Smart Tools\	Browse

Figure 2-3 Select the installed path

hoose Start Menu Folder	
Choose a Start Menu folder for the s	Smart Tools shortcuts.
Select the Start Menu folder in which	h you would like to create the program's shortcuts. You
can also enter a name to create a n	
Smart Tools	
360安全中心	
360电脑专家优化工具 Accessories	
Accessories Administrative Tools	
Adobe Photoshop CS6	
Aimetis	
Alphafinity IPC Tools	
BCL easyConverter SDK 4	
Camera Stream Controller	
Chrome Apps	
ConfigTool	
Device Search	

Figure 2-4 Select the installed folder

**Step4:** Click 'Next' button to complete the installation.





Figure 2-5 Finished installation





## **Chapter III Operations and settings**

The home page of the software is as following:

Figure 3-1 Home page

Click the buttons to enter the three parts. You can make settings for each part.

#### 3.1 IPC Tools

IPC Tools can automatically detect multiple online Milesight Network Cameras connected in the LAN, set IP addresses, and manage firmware upgrades. It is recommended when assigning IP addresses for multiple Milesight Network Cameras.

#### **Key Features**

- ♦ Support single and batch network settings
- ♦ Support batch modification of the device name
- ♦ Support batch modification of the user name and password
- ♦ Support batch time settings
- ♦ Support batch HTTP/RTSP port settings
- ♦ Support batch firmware upgrades
- ♦ Support batch restart or restore the device
- ♦ Support batch DDNS parameters settings
- ♦ Support batch primary/second/third stream parameters settings
- ♦ Support batch image parameters settings
- Support settings for brightness/contrast/saturation/sharpness/noise reduction/exposure level/exposure time/IR-CUT mode

Click the IPC Tools button, you will enter the IPC Tools part:



	6	•			)—		<u>_</u>				
		Smart Toc		Netwo						admin 💦 🔒 (n Search here	ns12
		Device Name	MAC	IP 🔺	Port	Netmask	Gateway	Model	Run-up Time	Version	
	□ 16	Network Camera	1C:C3:16:11:00:40	192.168.8.169	80	255.255.252.0	192.168.8.1	MS-C3263-FPNA	2016-01-28 15:39:11	30.6.0.42	6
	C 17	Network Camera	1C:C3:16:11:00:21	192.168.9.125	80	255.255.252.0	192.168.8.1	MS-C3263-PNA	2016-01-22 09:37:06	30.6.0.41-beta9	6
	C 18	IPCAM24	1C:C3:16:01:00:37	192.168.9.136	80	255.255.252.0	192.168.8.1	MS-C2651-PM	2016-01-20 15:58:14	11.5.0.93	6
	C 19	IPCAM	1C:C3:16:21:00:81	192.168.9.138	80	255.255.252.0	192.168.8.1	MS-C4473-PB	2016-01-20 15:27:47	40.6.0.29-alph	6
	┌ 20	142	1C:C3:16:02:00:67	192.168.9.142	80	255.255.252.0	192.168.10.1	MS-C3658-PMW	2016-01-28 14:37:24	20.5.0.109-bet	6
	□ 21	Network Camera	1C:C3:16:10:00:47	192.168.9.143	80	255.255.252.0	192.168.9.1	MS-C2163-PNA	2016-01-30 10:16:55	30.6.0.42-beta6	6
	⊂ 22	146	1C:C3:16:12:01:7E	192.168.9.146	80	255.255.252.0	192.168.10.1	MS-C3587-PA	2016-01-28 10:08:26	30.6.0.36	6
	C 23	Network Camera	1C:C3:16:10:01:4D	192.168.9.148	80	255.255.252.0	192.168.8.1	MS-C2181-PA	2016-01-30 10:27:25	30.6.0.43-alph	6
	□ 24	Network Camera	1C:C3:16:12:07:B0	192.168.9.149	80	255.255.252.0	192.168.8.1	MS-C3596-PWA	2016-01-22 09:37:00	30.6.0.41	6
	□ 25	Network Camera	1C:C3:16:12:01:19	192.168.9.160	80	255.255.252.0	192.168.8.1	MS-C3596-PWA	2016-01-29 17:48:06	30.6.0.42-di	6
	⊂ 26	Network Camera	1C:C3:16:21:00:53	192.168.9.162	80	255.255.252.0	192.168.8.1	MS-C4472-FPMB	2016-01-29 15:37:26	40.6.0.43-alph	6
	C 27	Network Camera	1C:C3:16:12:01:25	192.168.9.164	80	255.255.252.0	192.168.8.1	MS-C3596-PWA	2016-01-29 17:30:33	30.6.0.43-alph	6
	□ 28	Network Camera	1C:C3:16:11:13:34	192.168.9.174	80	255.255.252.0	192.168.8.1	MS-C3562-FPNA	2016-01-30 10:46:07	30.6.0.43-au1	6
	0/161	Device Name:	91		Port	Netma	ask:	Gateway:		INS:	-
										ж)м	
	Operati	ng Information									
$(\pm)$											
											_
										Save 🚫 Cle	

#### Figure 3-2 IPC Tools

#### Table 3-1 Icon of the IPC Tools

lcon	Function
	Home button.
<b>\$</b>	Software information: change the language and check the version information here.
- ×	Minimize/Close the software.
	Network: modify IP address, Netmask, gateway, etc.
$\bigotimes$	Setting: Video, System, OSD, Network ports, DDNS and UPnP settings.
9	Upgrade: Upgrade, Reboot and Reset.
	Preview: Preview and change the image parameters.
admin	Input correct user name&password of one camera or cameras to get further operations.
Q Search here	Input any information (Device Name, MAC, IP address, Port, Netmask, Gateway, Model and Version), and you will find your target more quickly.
0	Refresh the search result.
< >	Unfold/Fold button, click this button to unfold/fold the main menu.



#### 3.1.1 Network

Step1: Enter MAC or IP address or other information to search interested cameras;
Step2: Click the parameter of the area(marked as 2) to list the camera one by one;
Step3: Click interested cameras of the list, and then you can change the parameters including the device name, IP address, Netmask, Gateway and the HTTP port. Click "Modify" button to apply the settings.

**Step4:** Click the Browser button(marked as 3) to skip to the web of the camera; Details are shown as the Figure 3-3.

Ľ	O						9—	$\bigcirc$			
		Smart Too	<sup>ls</sup> 2							admin A m Search here	151234
		Device Name	MAC	IP 🔺	Port	Netmask	Gateway	Model	Run-up Time	Version	
С	7	Network Camera	1C:C3:16:12:00:4D	192.168.8.138	80	255.255.252.0	192.168.8.1	A211	2016-01-29 15:01:29	30.6.18.42-bet	0
Г	8	145@Network C	1C:C3:16:12:01:27	192.168.8.145	80	255.255.252.0	192.168.8.1	MS-C3596-PWA	2016-01-30 10:39:08	30.6.0.42	0
С	9	146@Network C	1C:C3:16:12:03:A5	192.168.8.146	80	255.255.252.0	192.168.8.1	MS-C3377-PNA	2016-01-22 14:22:38	30.6.0.42	0
Г	10	149@Network C	1C:C3:16:12:00:57	192.168.8.149	80	255.255.252.0	192.168.8.1	MS-C3366-FPNA	2016-01-29 16:04:09	30.6.0.42	0
•	14	IPCAM	1C:C3:16:02:37:38	192.168.8.155	80	255.255.252.0	192.168.8.1	MS-C3596-PW	2016-01-29 11:34:38	20.5.0.110	0
•	15	Network Camera	1C:C3:16:21:01:AA	192.168.8.156	80	255.255.252.0	192.168.8.1	MS-C4463-FPB	2016-01-30 11:37:23	40.6.0.30-alph	0
C	11	Network Camera	1C:C3:16:21:00:5A	192.168.8.158	80	255.255.252.0	192.168.8.1	MS-C4463-FIPB	2016-01-30 09:22:44	40.6.0.29	0
r	12	Network Camera	1C:C3:16:11:07:84	192.168.8.159	80	255.255.252.0	192.168.8.1	MS-C3582-PA	2016-01-29 14:19:27	30.6.0.42	0
С	13	IPCAM	1C:C3:16:20:00:0F	192.168.8.162	80	255.255.255.0	192.168.8.1	MS-C3862-FPB	2016-01-07 16:49:50	41.6.0.27-alph	0
Г	16	Network Camera	1C:C3:16:12:07:1A	192.168.8.164	80	255.255.252.0	192.168.8.1	MS-C3587-PA	2016-01-27 08:33:33	30.6.0.42-mjpeg	0
С	17	Network Camera	1C:C3:16:20:00:EF	192.168.8.168	80	255.255.255.0	192.168.8.1	MS-C2862-FPB	2016-01-28 17:42:17	41.6.0.30-beta4	0
Г	18	Network Camera	1C:C3:16:11:00:40	192.168.8.169	80	255.255.252.0	192.168.8.1	MS-C3263-FPNA	2016-01-28 15:39:11	30.6.0.42	0
С	19	Network Camera	1C:C3:16:11:00:21	192.168.9.125	80	255.255.252.0	192.168.8.1	MS-C3263-PNA	2016-01-22 09:37:07	30.6.0.41-beta9	0
<i>c</i>	- 0.0										0
		📋 Same IP	Start IP: 192.168.8	.155 Ports	80	Netmask: 2	55.255.252.0	Gateway: 19	2.168.8.1 DI	NS: 192.168.1.1	
										× M∘	
Оре 1	eratir	g Information 2016-01-30 11:38:57	110/02/16/21/01/44	Modify ID:102168	9 119 .	192.168.8.157 succe	refully				
2		2016-01-30 11:39:42				192.168.8.163 Netrr		.0->255.255.252.0			
				DNS:8.8.8.8->192.10	58.1.1 su	iccessfully.					
3		2016-01-30 11:39:53	[1C:C3:16:02:37:38]	Modify Port:81->8	) succes	sfully.					
4		2016-01-30 11:51:27	[1C:C3:16:21:01:AA	] Modify IP:192.168	8.163->	192.168.8.156 succe	ssfully.				
_											

Figure 3-3 Network Table 3-2 Parameters of the Network page

		Click the button(marked 1 in the picture), Select all cameras at
	Select All	a time
	Same IP	Modify all the selected cameras with a same IP
	Start IP Address	Modify all the selected cameras' IP addresses from this one
	Device Name	Modify Device Name
Optional	IP Address	Modify the selected device into this IP
	Port	Modify the HTTP port
	Netmask	Modify the net mask
	Gateway	Modify the gateway
	DNS	Modify the DNS server
	Modify	Save the changes
Operating		Operating logs
Operating Information	Save	Save the logs
mormation	Clear	Clear the logs





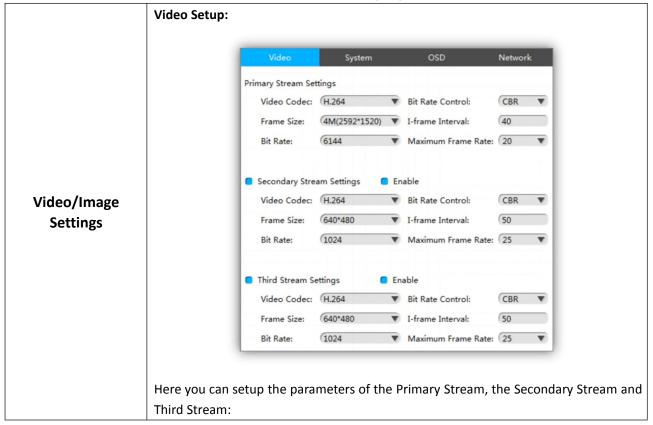
#### 3.1.2 Setting

When click the 'Setting' button, you can set the related parameters of the Video, System, OSD, Network. Details are shown as follow.

	0	Device Name	MAC	IP A	Model		Video	System		OSD	Networ	ĸ
0	7	Network Camera	1C:C3:16:12:00:4D	192.168.8.138	A211	Pri	mary Stream Set	-	_		_	
с і	8	145@Network C	1C:C3:16:12:01:27	192.168.8.145	MS-C3596-PWA		Video Codec:			Bit Rate Control:	CBR	
с .	9	146@Network C	1C:C3:16:12:03:A5	192.168.8.146	MS-C3377-PNA		Frame Size:	(4M(2592*1520)		I-frame Interval:	(40	
C 1	10	149@Network C	1C:C3:16:12:00:57	192.168.8.149	MS-C3366-FPNA		Bit Rate:	(6144		Maximum Frame Rate:	(20	
C 1	11	IPCAM	1C:C3:16:02:37:38	192.168.8.155	MS-C3596-PW							
• 1	12	Network Camera	1C:C3:16:21:01:AA	192.168.8.156	MS-C4463-FPB	•	Secondary Strea	am Settings	En	able		
C 1	13	Network Camera	1C:C3:16:21:00:5A	192.168.8.158	MS-C4463-FIPB		Video Codec:	(H.264		Bit Rate Control:	CBR	
C 1	14	Network Camera	1C:C3:16:11:07:84	192.168.8.159	MS-C3582-PA		Frame Size:	640*480		I-frame Interval:	50	
C 1	15	IPCAM	1C:C3:16:20:00:0F	192.168.8.162	MS-C3862-FPB		Bit Rate:	1024		Maximum Frame Rate:	25	
C 1	16	Network Camera	1C:C3:16:12:07:1A	192.168.8.164	MS-C3587-PA							
0 1	17	Network Camera	1C:C3:16:20:00:EF	192.168.8.168	MS-C2862-FPB	•	Third Stream Se	ttings	En	able		
C 1	18	Network Camera	1C:C3:16:11:00:40	192.168.8.169	MS-C3263-FPNA		Video Codec:	(H.264		Bit Rate Control:	CBR	
C 1	19	Network Camera	1C:C3:16:11:00:21	192.168.9.125	MS-C3263-PNA		Frame Size:	640*480	V	I-frame Interval:	50	
C 2	20	IPCAM24	1C:C3:16:01:00:37	192.168.9.136	MS-C2651-PM		Bit Rate:	1024		Maximum Frame Rate:	25	
										Save Parar		
Opera	atir	ng Information								<u> </u>		
1		2016-01-31 14:33:22	[1C:C3:16:21:01:AA]	[192.168.8.156] Set	video parameters suo	cessfully.						

#### Figure 3-4 Setting

Table 3-3 Sub interfaces of the Setting Page







	Video Codec: H.265(if camera supports)/H.264/MJPEG available									
	Frame Size: the resolution									
	Bit Rate: transmitting bits of data per second									
	Bit Rate Control: CBR/VBR									
	I-frame Interval: Set the I-frame interval to 1~30									
	Maximum Frame Rate: maximum refresh frame rate per second									
	System Setup:									
	Video System OSD Network									
	Video System OSD Network									
	Administrator									
	Username: (admin									
	Password:									
	Confirm Password: Save									
	System Setup									
	Device Name: Network Camera									
	Date/Time Setup									
	Date: 2016-01-31 Time: 14:39:20									
	Timezone: 8 China (Beijing, Taipei)									
	Daylight saving time: Disabled									
	<ul> <li>Keep current date and time</li> </ul>									
	Synchronize with computer time									
	Set date and time manually									
	Synchronize to SNTP server: (pool.ntp.org									
System Settings										
	Here you can setup the parameters of the System:									
	Administrator:									
	Username: Modify the user name.									
	Password: Modify the password.									
	<b>Confirm Password:</b> Entry the password again to make a confirmation.									
	Save: Save the user name and password information.									
	System Setup:									
	<b>Device Name:</b> Modify the device name.									
	Date/Time Setup:									
	Keep current date and time: Keep current date and time of the system.									
	Synchronize with computer time: Synchronize the time with your computer.									
	Set date and time manually: Set the system time manually.									
	Synchronize to SNTP server: Synchronize the time with configured network server									
	and selected time zone.									
OSD	OSD Setting:									



	Video System OSD Network
	OSD Settings
	Video Stream: Primary Stream 🔻
	Show Video Title: Video Title: (1=-es
	Text Position: (Top-Right V
	Show Timestamp:
	Date Position: Top-Right 🔻
	Date Format: DD/MM/YYYY V
	Copy to other stream: 1 C 2 C 3
	Video Stream: Here you can choose the stream of OSD.
	Show Video Title: Enable/Disable the video title.
	Video Title: Enter the video title.
	Text Position: Top-Right/Top-Left.
	Show Timestamp: Enable/Disable the timestamp.
	Date Position: Top-Right, Top-Left, Bottom-Right and Bottom-Left available.
	Copy to other stream: Copy the OSD information to other stream.
	Network Setup:
	Video System OSD <u>Network</u>
	Port
	HTTP Port: (80 RTSP Port: (554
	RTSP Port: (554
	DDNS Setup 🗧 Enable
	Provider: (freedns.afraid.org▼
	Host Name:
	Hash:
Network Settings	
0	UPnP Enable UPnP
	Enable Port Mapping (Auto)
	Manually Port Mapping: Here you can set up the HTTP Port and RTSP Port.
	<b>DDNS Parameters Setup:</b> DDNS allows you to access the device via domain name
	instead of IP address. It manages to change IP address and update your domain
	information dynamically.
	<b>UPnP:</b> UPnP allows you skip the steps to router port mapping.





#### 3.1.3 Upgrade

Upgrade is used for managing the firmware upgrades. Here you can upgrade several devices' firmware with one file at a time.

		Device Name	MAC	IP	Port	Netmask	Gateway	Model	Version 🔺		
	1	IPCAM	1C:C3:16:02:16:AF		80	255.255.252.0		MS-C3658		2016-01-20 12:03:02	0
	2	IPCAM	1C:C3:16:02:00:1D		80	255.255.252.0		MS-C3658	20.5.0.107.002	2016-01-20 12:04:46	0
	3	IPCAM	1C:C3:16:FF:00:78		80	255.255.252.0		MS-C2671	10.5.0.104	2016-01-20 12:00:52	0
C	4	IPCAM	1C:C3:16:01:00:72		80	255.255.252.0		MS-C2651-PM	10.5.0.109	2015-10-23 14:24:50	0
C	5	IPCAM	1C:C3:16:01:00:38		80	255.255.252.0		MS-C2651-PM	10.5.0.109	2015-11-04 16:21:09	0
r		IPCAM	1C:C3:16:05:00:4E	192.168.10.210	80	255.255.252.0	192.168.10.1	MS-C2671	10.5.0.109	2016-01-20 09:38:20	0
C	7	IPCAM	1C:C3:16:01:00:63	192.168.10.204	8011	255.255.252.0	192.168.10.1	MS-C2651	10.5.0.109	2016-01-26 15:01:23	0
C	8	IPCAM	1C:C3:16:01:00:5D	192.168.10.200	80	255.255.252.0	192.168.10.1	MS-C2351	10.5.0.109	2016-01-20 09:37:57	0
С	9	IPCAM	1C:C3:16:04:00:6E	192.168.10.238	80	255.255.252.0	192.168.10.1	MS-C2662	10.5.0.109	2015-11-20 17:45:11	0
r	10	IPCAM24	1C:C3:16:01:00:37	192.168.9.136	80	255.255.252.0	192.168.8.1	MS-C2651-PM	11.5.0.93	2016-01-20 15:58:18	0
ſ	11	IPCAM	1C:C3:16:02:16:B6	192.168.10.228	80	255.255.252.0	192.168.10.1	MS-C3658	20.5.0.103	2016-01-22 09:13:38	0
r	12	IPCAM	1C:C3:16:02:00:4A	192.168.10.216	80	255.255.252.0	192.168.10.1	MS-C3351	20.5.0.109	2016-01-06 11:57:08	0
ſ	13	IPCAM	1C:C3:16:02:16:B5	192.168.10.219	80	255.255.252.0	192.168.10.1	MS-C3658	20.5.0.109	2015-11-04 16:21:38	0
		(XX.XX.XX.X	XV				<b>•</b> F		iding 🌀 Upg	rade (1) Reboot	<b>)</b> R
		File:			-					Browse	
		g Information									

Figure 3-5 Upgrade

#### Note:

When you need to upgrade firmware of your network camera, the firmware file should match with the device, otherwise it will fail.

XXXXXXXX	Firmware	Applicable Model
XX.XX.XX.XX	10.5.0.110	MS-C2xxx-xx
10.XX.XX.XX	20.5.0.110	MS-C3xxx-xx
20.XX.XX.XX 30.XX.XX.XX	30.6.0.42	MS-Cxxxx-xxA
40.XX.XX.XX	40.6.0.30	MS-Cxxxx-xxB
41.XX.XX.XX	41.6.0.30	MS-Cxxxx-xxB

#### 3.1.4 Preview

The Video Previews is used for setting the related parameters of the video with live view to display the differences. Live view will be full screen if you double click it.



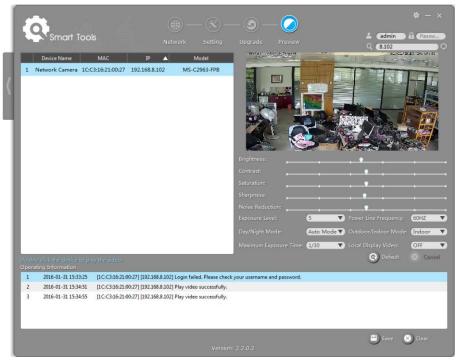


Figure 3-6 Preview

Table 3-3	Parameter of the Previews Page
-----------	--------------------------------

	Brightness	The higher the brightness level is chosen, the brighter the image is.					
	Contrast	It is easier to distinguish and get clearer image if a higher level of					
Imaga	Contrast	contrast is chosen.					
Image	Saturation	A more colorful image appears, if a higher level of saturation is chosen.					
	Sharpness	Sharpen edges of the image.					
	<b>Noise Reduction</b>	Reduce the noise to get a better image.					
Exp	osure Level	Set the exposure level from 0 to 10.					
Day/	Night Mode	Auto Mode, Day Mode and Night Mode available.					
Maximur	n Exposure Time	Set the maximum exposure time from 1/5 to 1/100000.					
Power	Line Frequency	60HZ flicker for NTSC mode and 50HZ flicker for PAL mode.					
Outdoo	r/Indoor Mode	Select indoor or outdoor mode according to your needs.					
Local	display Video	OFF, NTSC and PAL available.					

#### 3.2 NVR Tools

NVR Tools can automatically detect multiple online Milesight Network NVRs connected in the LAN, set IP addresses, and manage firmware upgrades. It is recommended when assigning IP addresses for multiple Milesight Network NVRs.

#### **Key Features**

- ♦ Support single and batch network settings
- ♦ Support batch modification of the device name
- ♦ Support batch modification of the user name and password





- ♦ Support batch firmware upgrades
- ♦ Support batch restart or restore the device
- ♦ Support batch get status of the NVR

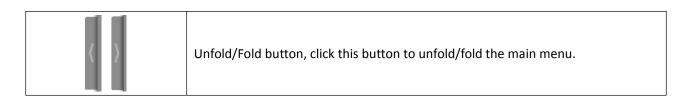
Click the NVR Tools button, you will enter the NVR Tools part:

Ì	Ec						-9					
		<b>S</b> mart	Tools							a Q	admin Search here.	ns1234
	•	evice Name	MAC	IP 🔺	Port	Netmask	Gateway	Model	SN	Version	Run-up Tin	1e
	0	NVR	1C:C3:16:0A:17:BD	192.168.8.101	8101	255.255.252.0	192.168.9.1	MS-N1009-UT	1205420034	61.7.0.5	2015-12-30 15	59:04 🗿
	C	NVR	08:5A:E0:05:01:68	192.168.8.110	80	255.255.252.0	192.168.8.1	MS-N8032	8004150003	1.7.0.5	2015-11-13 09	13:37 🗿
10 C T 1	0	Neio	08:5A:E0:05:0A:84	192.168.8.130	80	255.255.252.0	192.168.8.1	MS-N1008	1004480417	31.7.0.6-alph	2016-01-27 14	39:49 🗿
IPC Tools	C	iii	08:5A:E0:05:07:CC	192.168.8.177	80	255.255.252.0	192.168.8.1	MS-N8032	8004350016	1.7.0.5-alpha8-	2016-01-31 09	11:51 💿
	0	NVR	08:5A:E0:05:02:58	192.168.8.179	80	255.255.252.0	192.168.8.1	MS-N1008	1004150145	31.7.0.5	2016-01-19 01:	:04:20 💿
	C	NVR	1C:C3:16:0A:15:3C	192.168.9.81	80	255.255.252.0	192.168.8.1	MS-N8032	8005310037	1.7.0.6-alpha	2016-01-30 23	22:35 💿
	0	NVR	08:5A:E0:05:00:E9	192.168.9.82	80	255.255.252.0	192.168.9.1	MS-N1004	1004090008	31.7.0.6	2016-01-28 23	:03:34 🗿
	C	NVR	1C:C3:16:0A:17:E4	192.168.9.84	80	255.255.252.0	192.168.9.1	MS-N1009-UT	1205420073	61.7.0.6-qtal	2016-01-29 08	31:58 🗿
	0	NVR	1C:C3:16:0A:10:2C	192.168.9.113	80	255.255.252.0	192.168.8.1		1205020045	61.7.0.5-beta5	2016-01-27 03	14:19 🗿
	C	Cary-ST	1C:C3:16:0A:17:D6	192.168.9.121	80	255.255.252.0	192.168.8.1	MS-N1009-UT	1205420059	61.7.0.6-alph	2016-01-28 20	09:42 🗿
	c .	NVR	1C:C3:16:0A:17:D4	192.168.9.132	80	255.255.252.0	192.168.8.1	MS-N1009-UT	1205420057	61.7.0.6	2016-01-30 04	42:53 💿
NVR Tools	С	NVR	08:5A:E0:05:05:C0	192.168.9.133	80	255.255.252.0	192.168.8.1	MS-N5008	5004300007	2.7.0.6-alpha2	2016-01-13 22	22:05 🗿
	C	NVR	1C:C3:16:77:FD:0E	192.168.9.178	80	255.255.252.0	192.168.8.1	MS-N8032	8315510008	7.0.3-alpha1	2016-01-28 01:	40:20 🗿
	0/22	Device Na	imer(			) Ports	Netmask:	ANE 0105 00	Gateway:	1301 0	DNS:	
											×	Modify
	Operat	ing Informatic	חיי								)	
(+)												
	-											
Calculators												
							ion: 2.2.0.2			(	🖳 Save 🔇	Clear

#### Figure 3-7 NVR Tools

lcon	Function
	Home button.
<b>\$</b>	Software information: change the language and check the version information here.
- ×	Minimize/Close the software.
	Network: modify IP address, Netmask, gateway, etc.
9	Upgrade: Upgrade, Reboot and Reset.
*	Status: Connected cameras and their MAC/IP/Status .
admin	Input correct user name&password of one camera or cameras to get further operations.
Q Search here	Input any information (Device Name, MAC, IP address, Port, Netmask, Gateway, Model and Version), and you will find your target more quickly.
Q	Refresh the search result.





#### 3.2.1 Network

Step1: Enter the SN or IP address other information to search interested NVR;
Step2: Click the parameter of the area(marked as 2) to list the camera one by one;
Step3: Click interested cameras of the list, and then you can change the parameters including the IP address, Port, Netmask, Gateway and DNS. Click "Modify" button to apply the settings.

**Step4:** Click the Browser button(marked as 3) to skip to the web of the NVR; Details are shown as the Figure 3-8.

NVR NVR	08:5A:E0:05:00:E9 08:5A:E0:05:02:58 08:5A:E0:05:02:6C		80 80	255.255.252.0 255.255.252.0		MS-N1004	1004090008	31.7.0.6	2016-01-28 23:03:34
NVR			00		192 168 8 1	MS-N1008	1004150145	31.7.0.5	2016-01-19 01:04:20
	00.04.20.00.02.00	102 168 10 135	80	255.255.252.0		MS-N1008	1004150145		2016-01-28 22:54:03
	08:5A:E0:05:02:88		80	255.255.255.0		MS-N1008	1004150193	31.7.0.5	2016-01-22 14:54:09
Veio	08:5A:E0:05:0A:84		80	255.255.252.0		MS-N1008			2016-01-27 14:39:49
			80						
NVR	1C:C3:16:0A:10:5A	192.168.8.156	80	255.255.255.0	192.168.8.1	MS-N1009-UT	1205020091	61.7.0.6-alph	2016-02-01 02:00:55
NVR	1C:C3:16:0A:17:9E	192.168.10.137	80	255.255.252.0	192.168.10.1	MS-N1009-UT	1205420003	61.7.0.6-qtal	2016-07-02 08:41:24
NVR :	1C:C3:16:0A:17:BD	192.168.8.101	8101	255.255.252.0	192.168.9.1	MS-N1009-UT	1205420034	61.7.0.5	2015-12-30 15:59:04
NVR	1C:C3:16:0A:17:C8	192.168.10.190	80	255.255.252.0	192.168.10.1	MS-N1009-UT	1205420045	61.7.0.6-alph	2016-01-28 23:31:24
/R169	1C:C3:16:0A:17:CA	192.168.10.169	80	255.255.252.0	192.168.10.1	MS-N1009-UT	1205420047	61.7.0.6-alph	2016-01-26 21:07:46
NVR	1C:C3:16:0A:17:D4	192.168.9.132	80	255.255.252.0	192.168.8.1	MS-N1009-UT	1205420057	61.7.0.6	2016-01-30 04:42:53
ry-ST	1C:C3:16:0A:17:D6	192.168.9.121	80	255.255.252.0	192.168.8.1	MS-N1009-UT	1205420059	61.7.0.6-alph	2016-01-28 20:09:42
Davies New	NIVO	10, 102 169	0.156	0(90	Newson			102 169 9 1	DNS: 192.168.1.1
		192.100	.6.130	2018 80	Network .	233.233.233.0	Cateway	192.100.0.1	× Mo
	VVR VVR VVR VVR VVR VVR VVR VVR VVR Device Nam	VVR         1C:C3:16:0A:10:5A           vVR         1C:C3:16:0A:17:9E           vVR         1C:C3:16:0A:17:9E           vVR         1C:C3:16:0A:17:6D           vVR         1C:C3:16:0A:17:C8           vR169         1C:C3:16:0A:17:C4           vVR         1C:C3:16:0A:17:C4	VVR         1CcC3:16:0A:10:5A         192.168.8.156           VVR         1CcC3:16:0A:17:9E         192.168.10.137           VVR         1CcC3:16:0A:17:9E         192.168.10.137           VVR         1CcC3:16:0A:17:7E         192.168.10.190           VVR         1CcC3:16:0A:17:7E         192.168.10.190           VR169         1CcC3:16:0A:17:7A         192.168.9.132           VVR         1CcC3:16:0A:17:7D         192.168.9.121           Device Numer         NVR         192.168.9.121	VVR         1C:C3:16:0A:10:5A         192.168.8.156         80           VVR         1C:C3:16:0A:17:6B         192.168.10.137         80           VVR         1C:C3:16:0A:17:6B         192.168.10.137         80           VVR         1C:C3:16:0A:17:6B         192.168.10.197         80           VVR         1C:C3:16:0A:17:CB         192.168.10.169         80           VVR         1C:C3:16:0A:17:CB         192.168.9.132         80           VVP         1C:C3:16:0A:17:CB         192.168.9.121         80           VVP, ST         1C:C3:16:0A:17:CB         192.168.9.121         80           Device Namey         VVR         192.168.8.156	VVR         1C:C3:16:0A:10:5A         192.168.8.156         80         255.255.255.0           VVR         1C:C3:16:0A:17:9E         192.168.10.137         80         255.255.252.0           VVR         1C:C3:16:0A:17:9E         192.168.81.01         8101         255.255.252.0           VVR         1C:C3:16:0A:17:0E         192.168.10.190         80         255.255.252.0           VVR         1C:C3:16:0A:17:0E         192.168.81.01         80         255.255.252.0           VVR         1C:C3:16:0A:17:0E         192.168.91.21         80         255.255.252.0           vry-ST         1C:C3:16:0A:17:0E         192.168.91.21         80         255.255.252.0           Device Name         NVR         1P2 192.168.8.156         Port/ 80	VVR         ICC316.60A:10:5A         192.168.8.156         80         255.255.255.0         192.168.8.1           VVR         ICC316.60A:17:9E         192.168.10.137         80         255.255.252.0         192.168.8.1           VVR         ICC316.60A:17:9E         192.168.8.101         8101         255.255.252.0         192.168.8.1           VVR         ICC316.60A:17:8D         192.168.8.101         8101         255.255.252.0         192.168.0.1           VVR         ICC316.60A:17:C8         192.168.10.19         80         255.255.252.0         192.168.0.1           VR169         ICC316.60A:17:C4         192.168.10.19         80         255.255.252.0         192.168.0.1           VVR         ICC316.60A:17:D4         192.168.9.121         80         255.255.252.0         192.168.8.1           my-ST         ICC316.60A:17:D6         192.168.9.121         80         255.255.252.0         192.168.8.1           Device Numer         NVR         IP2.192.168.8.156         Portf 80         NetmasH	VVR         ICC316.00.410:5A         192.168.8.156         80         255.255.255.0         192.168.8.1         MS-N1009-UT           VVR         ICC316.00.417:9E         192.168.10.137         80         255.255.252.0         192.168.10.1         MS-N1009-UT           VVR         ICC316.00.417:9E         192.168.10.1         80         255.255.252.0         192.168.10.1         MS-N1009-UT           VVR         ICC316.00.417:0E         192.168.10.1         80         255.255.252.0         192.168.10.1         MS-N1009-UT           VRR         ICC316.00.417:0E         192.168.10.169         80         255.255.252.0         192.168.10.1         MS-N1009-UT           VRR         ICC316.00.417:0E         192.168.9.122         80         255.255.252.0         192.168.8.1         MS-N1009-UT           vry-ST         ICC316.00.417:0E         192.168.9.121         80         255.255.252.0         192.168.8.1         MS-N1009-UT           my-ST         ICC316.00.417:0E         192.168.8.156         Portf (80         Netmodel 255.255.255.0           Device Numer         NVR         IP2.168.8.156         Portf (80         Netmodel 255.255.255.0	VVR         IC:C3:16:0A:10:5A         192.168.8.156         80         255.255.255.0         192.168.8.1         MS-N1009-UT         120502001           VVR         IC:C3:16:0A:17:9E         192.168.8.101         80         255.255.252.0         192.168.8.1         MS-N1009-UT         1205420031           VVR         IC:C3:16:0A:17:8D         192.168.8.101         8101         255.255.252.0         192.168.10.1         MS-N1009-UT         1205420034           VVR         IC:C3:16:0A:17:8D         192.168.10.1         80         255.255.252.0         192.168.10.1         MS-N1009-UT         1205420045           VR169         IC:C3:16:0A:17:CA         192.168.10.169         80         255.255.252.0         192.168.8.1         MS-N1009-UT         1205420047           VVR         IC:C3:16:0A:17:CA         192.168.9.121         80         255.255.252.0         192.168.8.1         MS-N1009-UT         1205420057           ry-ST         IC:C3:16:0A:17:CB         192.168.8.156         Port/ 80         Netmask: 255.255.25.0         Gitteway(	VVR         IC:C3:16:0A:10:5A         192:168.8.156         80         255:255:255.0         192:168.8.1         MS-N1009-UT         1205020091         61.7.0.6-alph           VVR         IC:C3:16:0A:17:9E         192:168.8.10         80         255:255:252.0         192:168.8.1         MS-N1009-UT         1205020091         61.7.0.6-alph           VVR         IC:C3:16:0A:17:9E         192:168.10.137         80         255:255:252.0         192:168.8.1         MS-N1009-UT         1205420003         61.7.0.6-alph           VVR         IC:C3:16:0A:17:9E         192:168.10.1         80         255:255:252.0         192:168.8.1         MS-N1009-UT         1205420045         61.7.0.6-alph           VVR         IC:C3:16:0A:17:CA         192:168.10.169         80         255:255:252.0         192:168.8.1         MS-N1009-UT         1205420047         61.7.0.6-alph           VVR         IC:C3:16:0A:17:04         192:168.9.122         80         255:255:252.0         192:168.8.1         MS-N1009-UT         1205420057         61.7.0.6-alph           VVR         IC:C3:16:0A:17:04         192:168.9.121         80         255:255:252.0         192:168.8.1         MS-N1009-UT         1205420059         61.7.0.6-alph           Device Name         NVR         IP2/192:168.8.156 <td< td=""></td<>

#### Figure 3-8 Network

Table 3-5 Parameter of the Network page

	Select All	Click the button(marked 1 in the picture), Select all cameras at a time
	Start IP Address	Modify all the selected cameras' IP addresses from this one
Optional	IP Address	Modify the selected device into this IP
Optional	Port	Modify the Selected device into this in
	Netmask	Modify the net mask
	Gateway	Modify the gateway





	DNS	Modify the DNS server
	Modify	Save the changes
Operating Information		Operating logs
	Save	Save the logs
information	Clear	Clear the logs

#### 3.2.2 Upgrade

Upgrade is used for managing the firmware upgrades. Here you can upgrade several devices' firmware with one file at a time.

<b>.</b>	Smart	Tools				Upgrad			<b>_</b>	admin 🔒 12	234
					NELWOIK	opgrac	1e DL	auus	C	Search here	
	Device Name	MAC	IP 🔺	Port	Netmask	Gateway	Model	SN	Version	Run-up Time	
ſ	NVR	1C:C3:16:0A:17:BD	192.168.8.101	8101	255.255.252.0	192.168.9.1	MS-N1009-UT	1205420034	61.7.0.5	2015-12-30 15:59:04	0
C	NVR	08:5A:E0:05:01:68	192.168.8.110	80	255.255.252.0	192.168.8.1	MS-N8032	8004150003	1.7.0.5	2015-11-13 09:13:37	6
Г	Neio	08:5A:E0:05:0A:84	192.168.8.130	80	255.255.252.0	192.168.8.1	MS-N1008	1004480417	31.7.0.6-alph	2016-01-27 14:39:49	6
С	NVR	1C:C3:16:0A:10:5A	192.168.8.156	80	255.255.255.0	192.168.8.1	MS-N1009-UT	1205020091	61.7.0.6-alph	2016-02-01 02:00:55	6
Г	ü	08:5A:E0:05:07:CC	192.168.8.177	80	255.255.252.0	192.168.8.1	MS-N8032	8004350016	1.7.0.5-alpha8-	2016-01-31 09:11:51	6
С	NVR	08:5A:E0:05:02:58	192.168.8.179	80	255.255.252.0	192.168.8.1	MS-N1008	1004150145	31.7.0.5	2016-01-19 01:04:20	6
Π	NVR	08:5A:E0:05:00:E9	192.168.9.82	80	255.255.252.0	192.168.9.1	MS-N1004	1004090008	31.7.0.6	2016-01-28 23:03:34	6
C	NVR	1C:C3:16:0A:17:E4	192.168.9.84	80	255.255.252.0	192.168.9.1	MS-N1009-UT	1205420073	61.7.0.6-qtal	2016-01-29 08:31:58	6
	NVR	1C:C3:16:0A:10:2C	192.168.9.113	80	255.255.252.0	192.168.8.1		1205020045	61.7.0.5-beta5	2016-01-27 03:14:19	6
C	Cary-ST	1C:C3:16:0A:17:D6	192.168.9.121	80	255.255.252.0	192.168.8.1	MS-N1009-UT	1205420059	61.7.0.6-alph	2016-01-28 20:09:42	6
Γ	NVR	1C:C3:16:0A:17:D7	192.168.9.127	80	255.255.252.0	192.168.8.1	MS-N1009-UT	1205420060	61.7.0.6-reb	2016-01-05 01:58:53	Ģ
С	NVR	08:5A:E0:05:07:44	192.168.9.128	80	255.255.252.0	192.168.8.1	A14-16-2	5204310095	30.7.0.6	2016-02-04 13:49:46	6
П	NVR	1C:C3:16:0A:17:D4	192.168.9.132	80	255.255.252.0	192.168.8.1	MS-N1009-UT	1205420057	61.7.0.6	2016-01-30 04:42:53	6
0/24	XXXX						Restore	after upgrad	ing 🕤 Upgr	ade () Reboot	)
	are File:		_	_	_	_				Browse	
	ating Informatio	n									

Figure 3-9 Upgrade

#### Note:

When you need to upgrade firmware of your NVR, the firmware file should match with the device, otherwise it will fail.

XX.XX.XX.XX	Model	Firmware
XX.XX.XX.XX	MS-N8016/8032/7016	1. ×. ×. ××
1.XX.XX.XX 2.XX.XX.XX	MS-N5004/5008	2. ×. ×. ××
30.XX.XX.XX	MS-N5009/5016	30. ×. ×. ××
31.XX.XX.XX	MS-N1004/1008	31. ×. ×. ××
61.XX.XX.XX	MS-N1009-UT	61. ×. ×. ××
71.XX.XX.XX	MS-N8032-UH	71. x. x. xx





#### **3.2.3** Status

The Status is used for checking the status of the channels of NVR. Click the 'Get All Status' to get all the status of the NVRs which share the same user name&password locally.

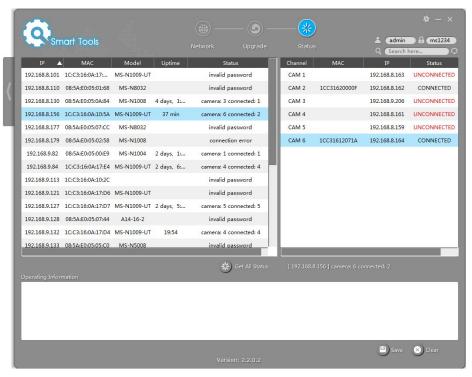


Figure 3-10 Status

#### **3.3 Calculators**

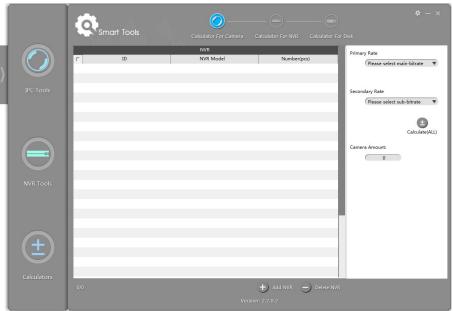
Calculators can be used to calculate the number of IP cameras which can be connected to the specified NVRs, and calculate the number of NVRs needed to manage the available IP cameras. It can also calculate according to the video time and equipment needed for disk space, calculate according to video disk space and equipment configuration time of tool software.

#### **Key Features**

- $\diamond$  Support calculating the supported number of camera according to NVR
- $\diamond\,$  Support calculating the needed number of NVR according to camera
- $\diamond$  Support calculating the needed disk storage
- $\diamond$  Support calculating the recording time according the disk storage
- $\diamond$  Innovative UI interface and easy use

Click the Calculators button, the page is as following:





#### Figure 3-11 Calculators Table 3-6 Icons of the Calculators page

lcon	Function
Smart Tools	Home button.
*	Software information: change the language and check the version information here.
- ×	Minimize/Close the software.
	Calculator For Camera.
	Calculator For NVR.
	Calculator For Disk.
< >	Unfold/Fold button, click this button to unfold/fold the main menu.

#### 3.3.1 Calculator For Camera

Choose your NVR model and numbers, set the cameras' rates for primary and secondary stream, then click the 'Calculate' button to get the number of the cameras you can add to your NVRs.





	mart Tools	Calculator	D For Camera				
r r	ID 1	NVR NVR M MS-N1008	odel T	Number() 3	pcs)	Primary Rate 4096kbps	v
						Secondary Rate 2048kbps	v
							E Calculate(ALL)
						Camera Amount:	
-							
				+ Add NVR	Delete NVR		

Figure 3-12 Calculator For Camera

#### **3.3.2 Calculator For NVR**

Choose your cameras' bit rate for primary&secondary streams and the cameras' numbers, select the NVRs' models, then click the 'Calculate' button to get the number of the needed NVRs' numbers and the suggested adding way.

			Camera					Select NVR:	
	ID		Bitrate			Number(pc	;)	(MS-N1004	р. — — — — — — — — — — — — — — — — — — —
		Primary Rat		Secondar	y Rate	_			
•	1	3072kbps 4096kbps		512kbps 512kbps	*	3	÷		E Calculate(AL
								NVR Needed(pcs):	VR needed: 1 🗸
								1D Ca 2	amera connected 3 1
								The number of N	
								1	4

Figure 3-13 Calculator For NVR





#### 3.3.3 Calculator For Disk

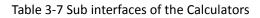
Edit the channels information, the software will calculate the record time depending on the given disk space, or the needed disk storage depending on the given time.

O.	art Tools					<u> </u>	
Device Type	Channel Name	Image Quality	Calculator For Ca	mera Calculato Frame Rate	or For NVR Calcula Bitrate(kbps)	tor For Disk Disk Space Given	Recording Time Giv
Camera	Channel1	Level 1(best)	1.3M(1280X960)	25	4096		Recording time on
Camera	Channel2	Level 1(best)	1.3M(1280X960)	25	4096	Disk Space:	
Camera	Channelaba3	Level 1(best)	1.3M(1280X960)	25	2048	(2)	GB
						Record 24	Hour(s) Each Day
						Recording Time:	Month(s
						(2	Week(s)
							55(6)
	+ Add Cha	innel(s) 🌖		— Delete Chan Version: 2.2.0.	9		

Figure 3-12(1) Calculator For Disk(Time)

	0			0-	(	9	-	<b>☆</b> - ×
	Sm	art Tools					ulator For Disk	
	Device Type	Channel Name	Image Quality	Resolution	Frame Rate	Bitrate(kbps)	Disk Space Given	Recording Time Given
	Camera	Channel1	Level 1(best)	1080P(1920X1080)	25	4096	Recording Time:	
1	Camera	Channel2	Level 1(best)	2M(1600X1200)	25	2048		Month(s)
м	Camera	Channel3	Level 1(best)	2M(1600X1200)	25	2048		-
							(2	Week(s)
щ								-
- 1							14	Day(s)
- 1								
							Record 24	Hour(s) Each Day
- 1								
- 1								e
- 1								Calculate(ALL)
- 1								
1							Disk Space:	
- 1							(2	ТВ
- 1								-
- 1							1313	GB
- 1								
- 1								
- 1								
- 1								
		+ Add Cha	nnel(s)	Modify Channel	—) Delete Cha	nnel 🙁 Delete		
1		0	9		$\sim$	$\smile$		
Ļ								

Figure 3-12(2) Calculator For Disk(Storage)



Add Channel(s)	Add Channel(s):



		Add	Channel(s) X	
		Channel		1
		Channel Number:	(1	
		Channel Prefix:	Channel	
		Configuration		
		Device Type:	Camera 🔻	
		Image Quality:	Level 1(best)	
		Resolution:	1.3M(1280X960) 🔻	
		Frame Rate:	25 🔻	
		Bitrate(kbps):	4096kbps 🔻	
			OK SCance	1
	Channel:			
	Channel Number:	The number you wan	it to add.	
	Channel Prefix: Yo	u can edit the channe	el prefix by yourself.	
	Configuration			
	Configuration: Device Type: The c	levice type		
	Image Quality: Ima			
		e the wanted resoluti	ion of the device	
			n-Right and Bottom-Left a	vailable.
	Bitrate: The bit rat			
	Modify Channel:			
				_
		Modify Cha	nnel Information	×
		Configuration		
		Device Type:	(IPC V	
		Image Quality:	Level 1(best)	
		Resolution:	1080P(1920X1080)	
Modify Channel		Frame Rate:	25	
would y channel				
		Bitrate(kbps):	4096kbps 🔻	
		0.	0.0	
		Сору	OK SCanc	el
	Configuration:			
	Device Type: The c	levice type.		
	Image Quality: Ima	age quality.		





	Resolution: Choose the wanted resolution of the device.		
	Frame Rate: Top-Right, Top-Left, Bottom-Right and Bottom-Left available.		
Bitrate: The bit rate of the device.			
	Copy: Copy the settings to other channels.		
	OK: Save the settings.		
	Cancel: Cancel the settings.		
Delete Channel	Delete the selected channel.		
Delete All	Delete all the channels.		





### **Chapter IV Service**

Milesight Technology Co., Ltd provides customers with timely and comprehensive technical support services. End-users can contact your local dealer to obtain technical support. Distributors and resellers can contact directly with Milesight for technical support.

Technical Support Mailbox: <a href="mailto:support@milesight.com">support@milesight.com</a> Web: <a href="http://www.milesight.com/service/feedback.asp">http://www.milesight.com/service/feedback.asp</a> Online Problem Submission System: <a href="http://www.milesight.com/service/feedback.asp">http://www.milesight.com/service/feedback.asp</a> Address: No.23Wanghai Road, 2nd Software Park, Xiamen, China Zip Code: 361006 TEL: +86-592-5922772 FAX: +86-592-5922775

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