Smart Tools User Manual

Milesight Technology Co.,Ltd.

V2.01

Contents

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;

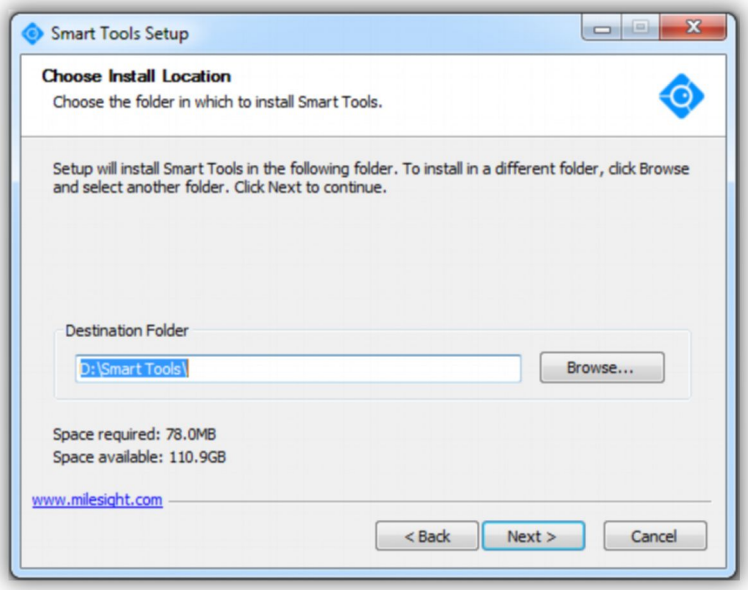


Figure 2-3 Select the installed path

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:

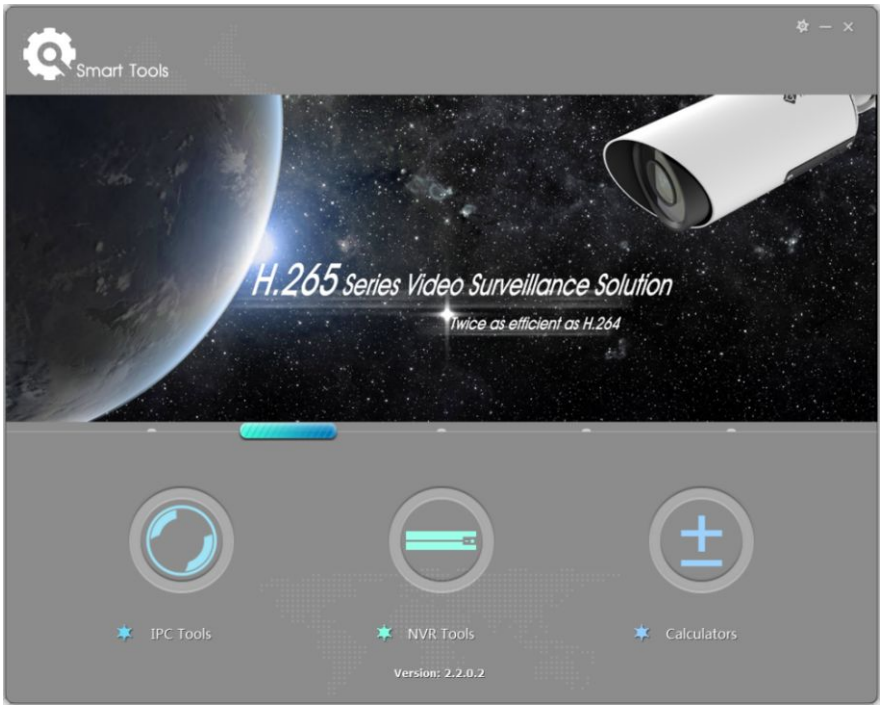


Figure 3-1 Home page

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:

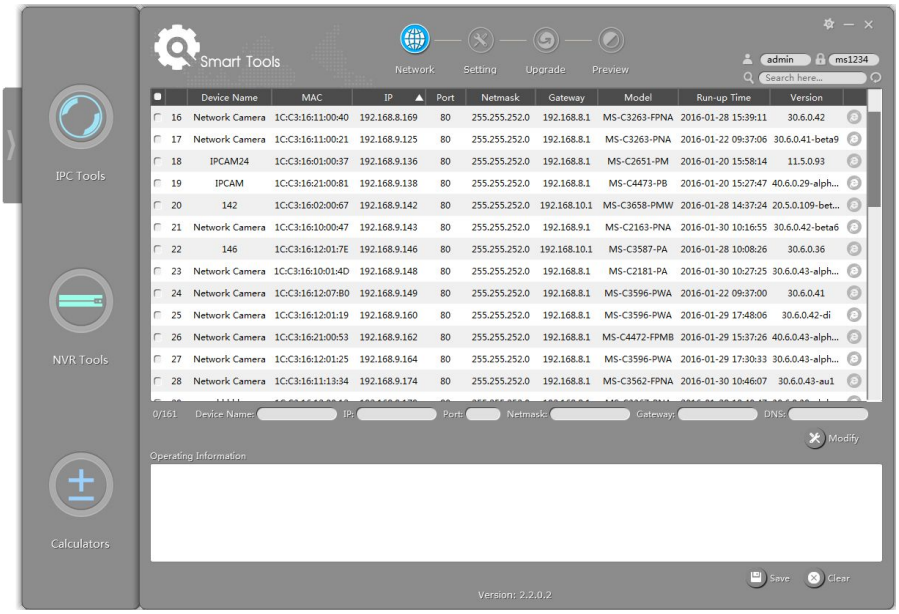
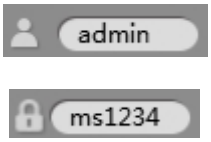
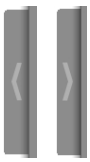


Figure 3-2 IPC Tools

Table 3-1 Icon of the IPC Tools

Icon	Function
	Home button.
	Software information: change the language and check the version information here.
	Minimize/Close the software.
	Network: modify IP address, Netmask, gateway, etc.
	Setting: Video, System, OSD, Network ports, DDNS and UPnP settings.
	Upgrade: Upgrade, Reboot and Reset.
	Preview: Preview and change the image parameters.
	Input correct user name&password of one camera or cameras to get further operations.
	Input any information (Device Name, MAC, IP address, Port, Netmask, Gateway, Model and Version), and you will find your target more quickly.
	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.

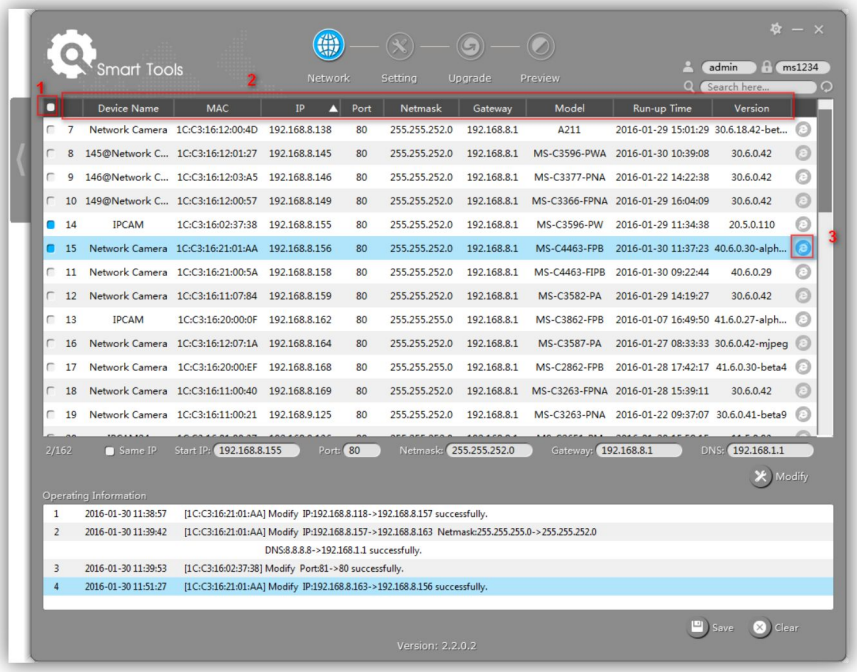


Figure 3-3 Network

Table 3-2 Parameters of the Network page

Optional	**Select All**	Click the button(marked 1 in the picture), Select all cameras at 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
	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 Information		Operating logs
	Save	Save the logs
	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.

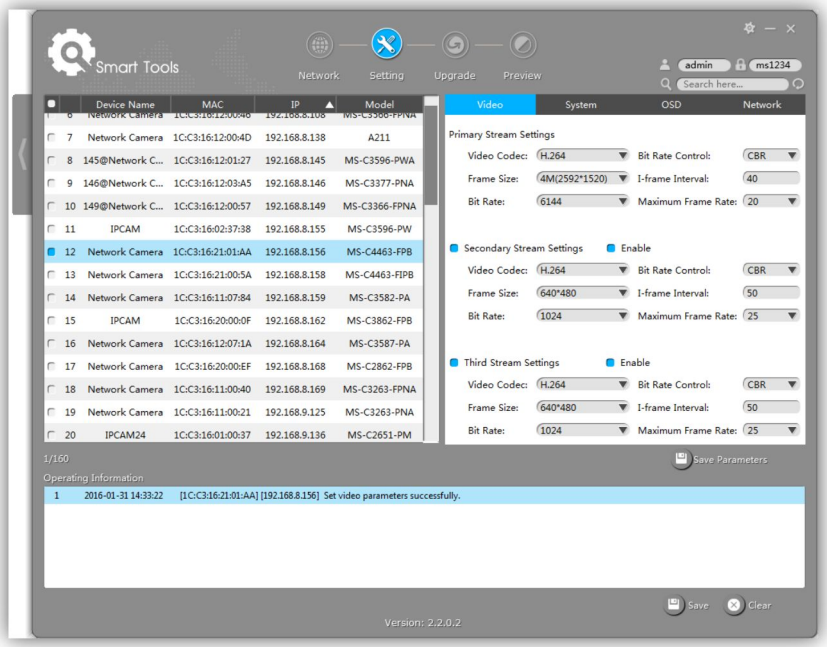
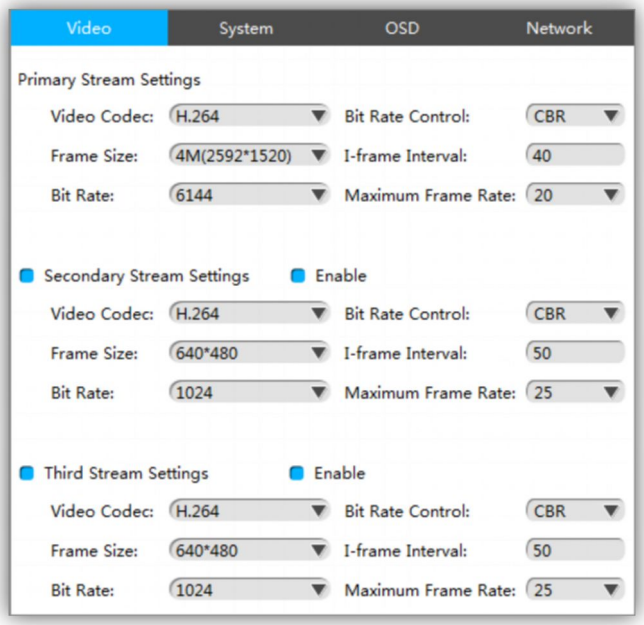
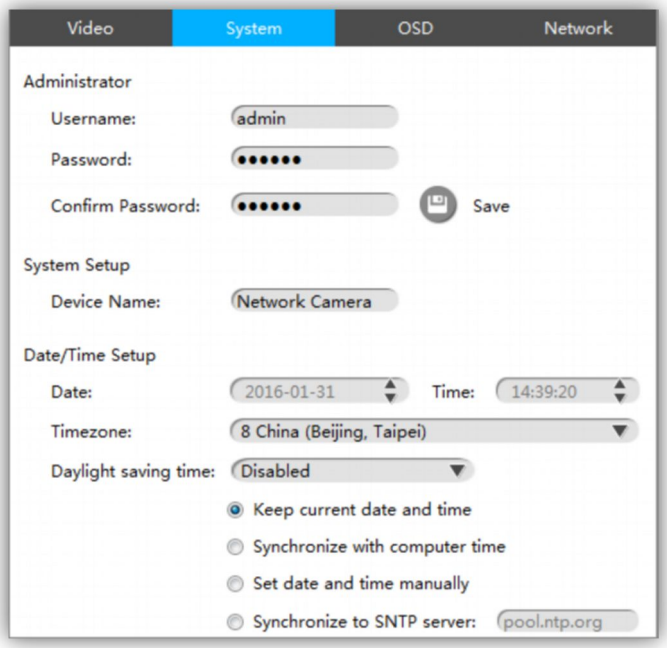
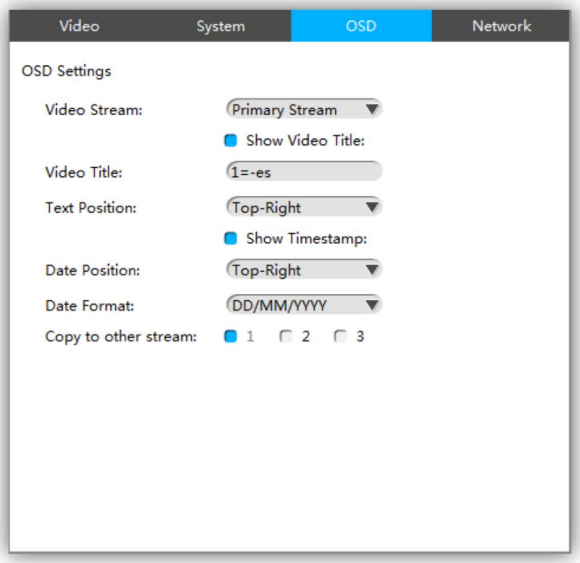


Figure 3-4 Setting

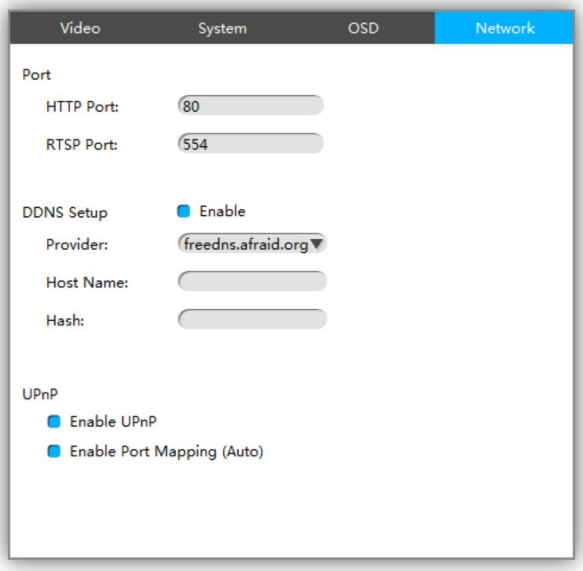
Table 3-3 Sub interfaces of the Setting Page

Video/Image Settings	**Video Setup:**  Here you can setup the parameters of the Primary Stream, the Secondary Stream and Third Stream:

	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 Settings	**System Setup:**  Here you can setup the parameters of the System: **Administrator:** **Username:** Modify the user name. **Password:** Modify the password. **Confirm Password:** Entry the password again to make a confirmation. **Save:** Save the user name and password information. **System Setup:** **Device Name:** 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:**

<table>
<tr>
<td></td>
<td>


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.
</td>
</tr>
<tr>
<td>Network Settings</td>
<td>
Network Setup:



Manually Port Mapping: Here you can set up the HTTP Port and RTSP Port.
DDNS Parameters Setup: 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.
UPnP: UPnP allows you skip the steps to router port mapping.
</td>
</tr>
</table>

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.

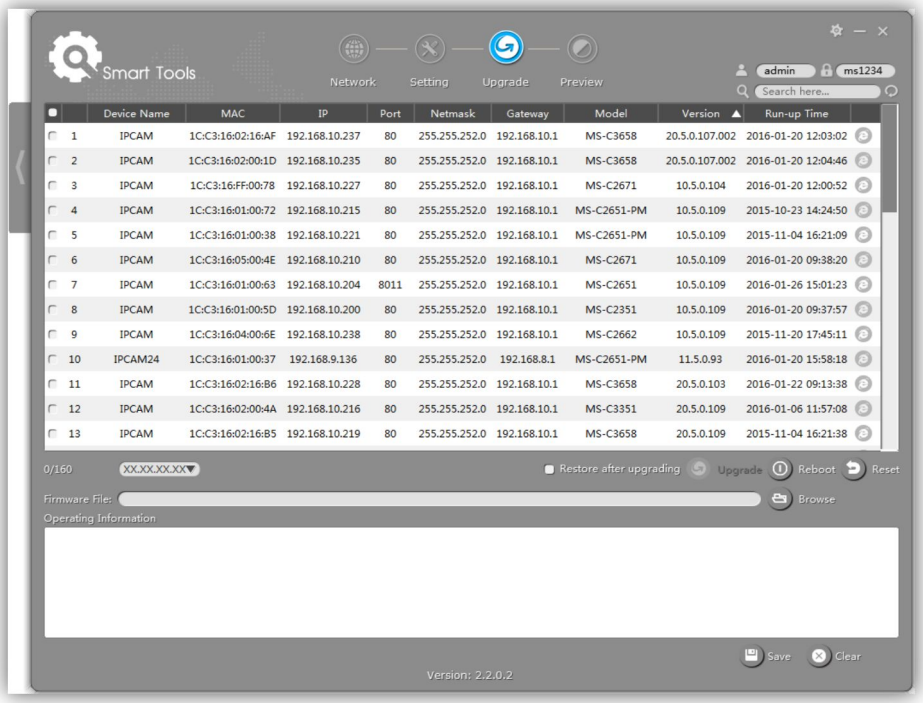


Figure 3-5 Upgrade

Note:

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

XX.XX.XX.XX	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	30.6.0.42	MS-Cxxxx-xxA
30.XX.XX.XX	40.6.0.30	MS-Cxxxx-xxB
40.XX.XX.XX	41.6.0.30	MS-Cxxxx-xxB
41.XX.XX.XX		

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.

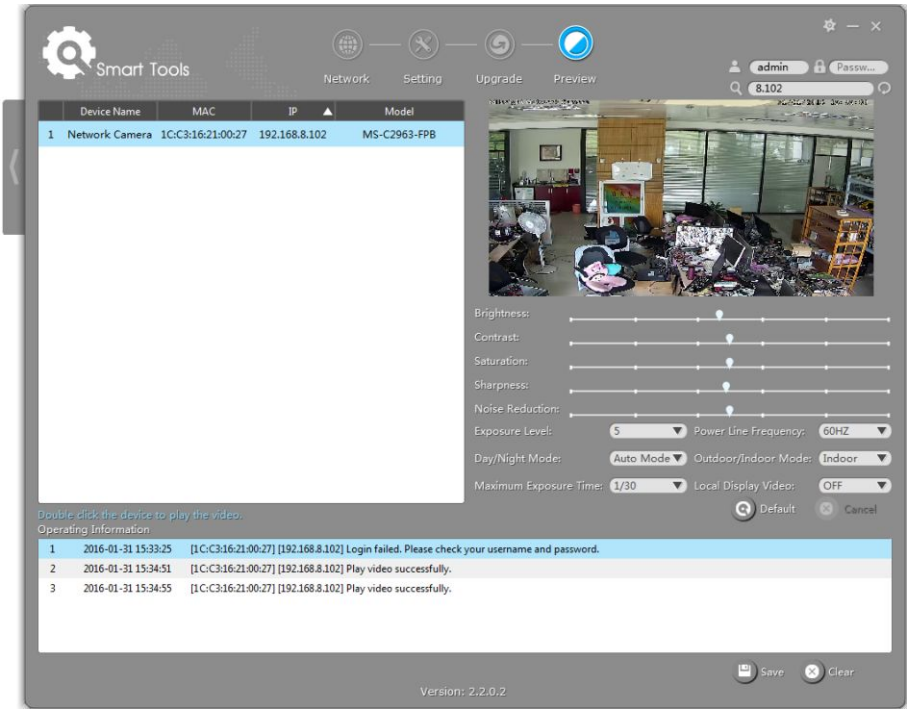


Figure 3-6 Preview

Table 3-3 Parameter of the Previews Page

Image	**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 contrast is chosen.
	Saturation	A more colorful image appears, if a higher level of saturation is chosen.
	Sharpness	Sharpen edges of the image.
	Noise Reduction	Reduce the noise to get a better image.
Exposure Level		Set the exposure level from 0 to 10.
Day/Night Mode		Auto Mode, Day Mode and Night Mode available.
Maximum 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.
Outdoor/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:

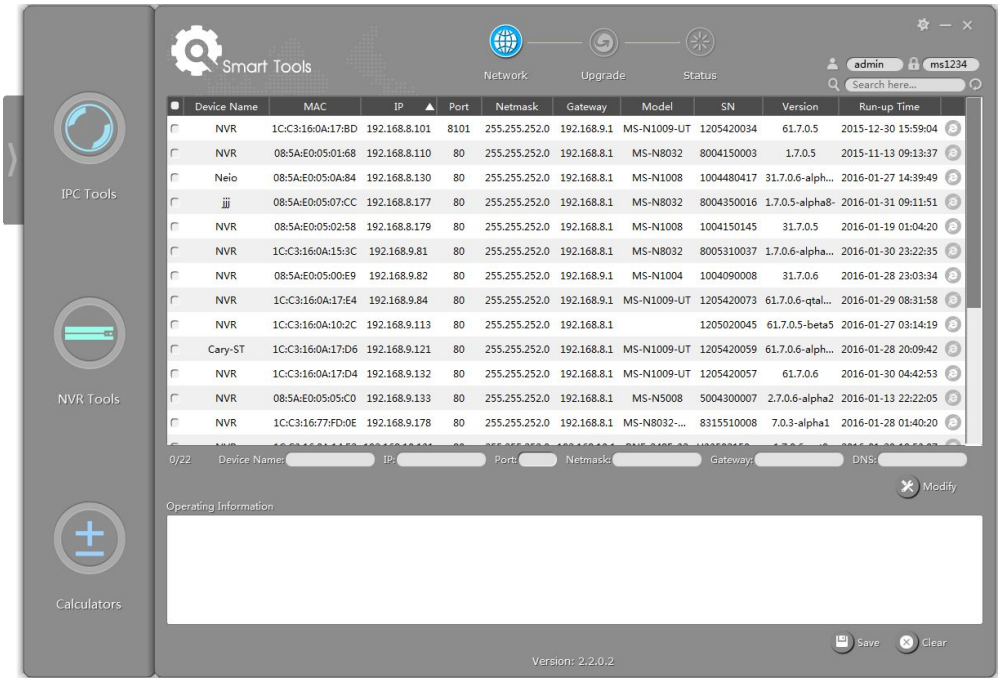
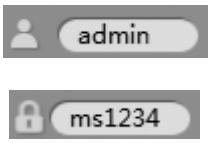
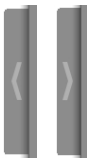


Figure 3-7 NVR Tools

Table 3-4 Icons of the NVR Tools Page

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

	Unfold/Fold button, click this button to unfold/fold the main menu.

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.

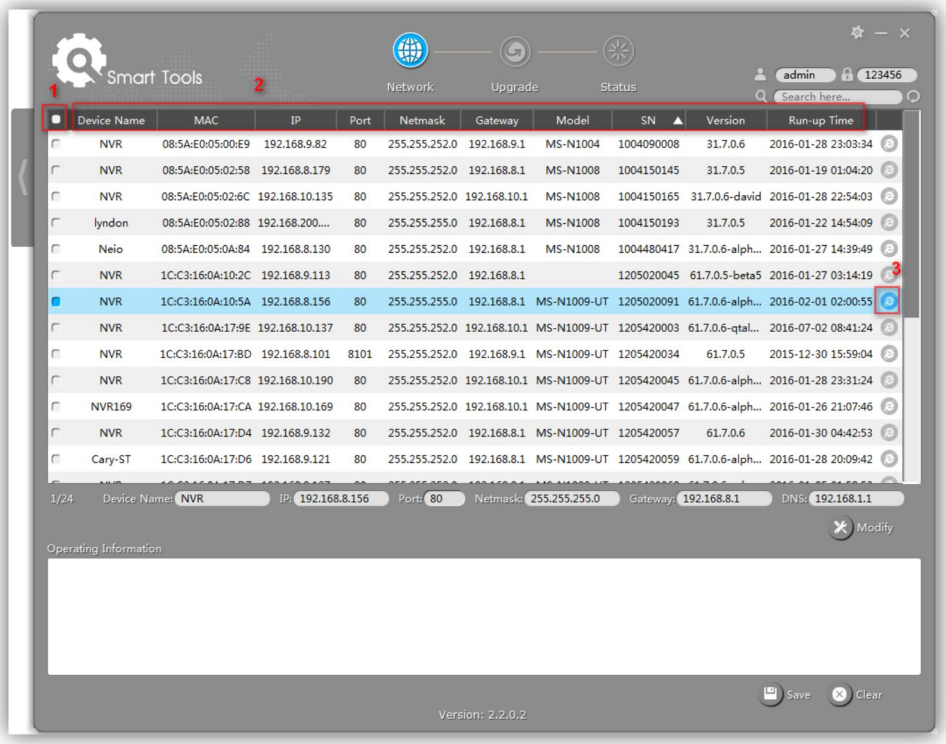


Figure 3-8 Network

Table 3-5 Parameter of the Network page

Optional	**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
	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 Information		Operating logs
	Save	Save the logs
	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.

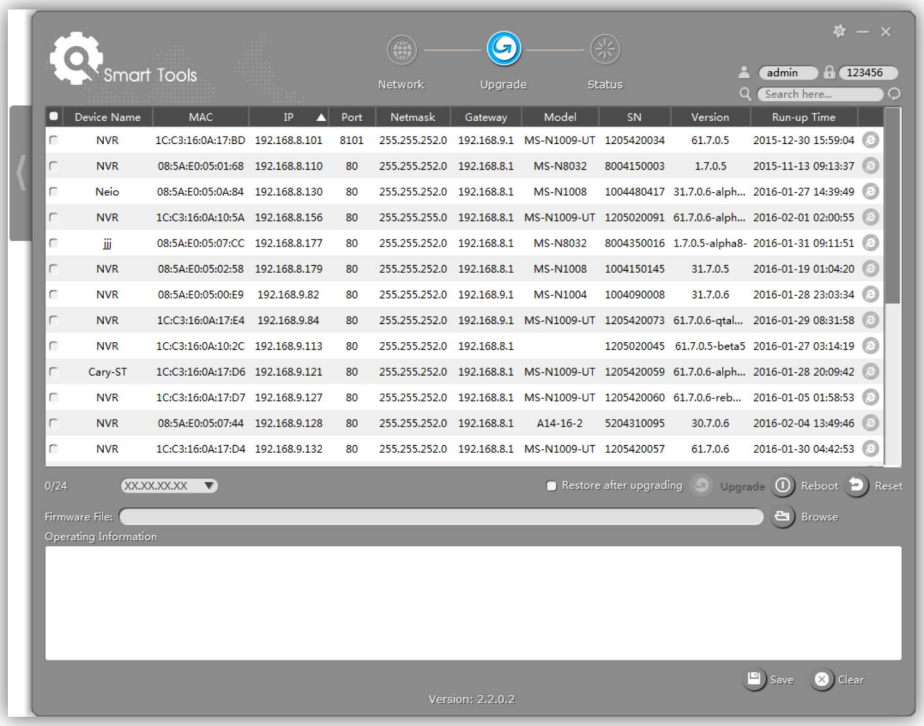
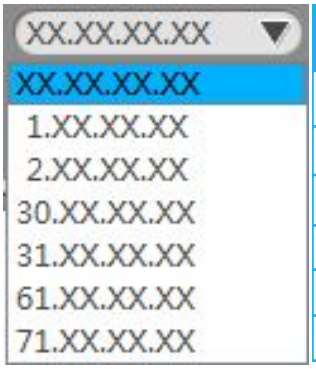


Figure 3-9 Upgrade

Note:

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



Model	Firmware
MS-N8016/8032/7016	**1.** ×. ×. ××
MS-N5004/5008	**2.** ×. ×. ××
MS-N5009/5016	**30.** ×. ×. ××
MS-N1004/1008	**31.** ×. ×. ××
MS-N1009-UT	**61.** ×. ×. ××
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.

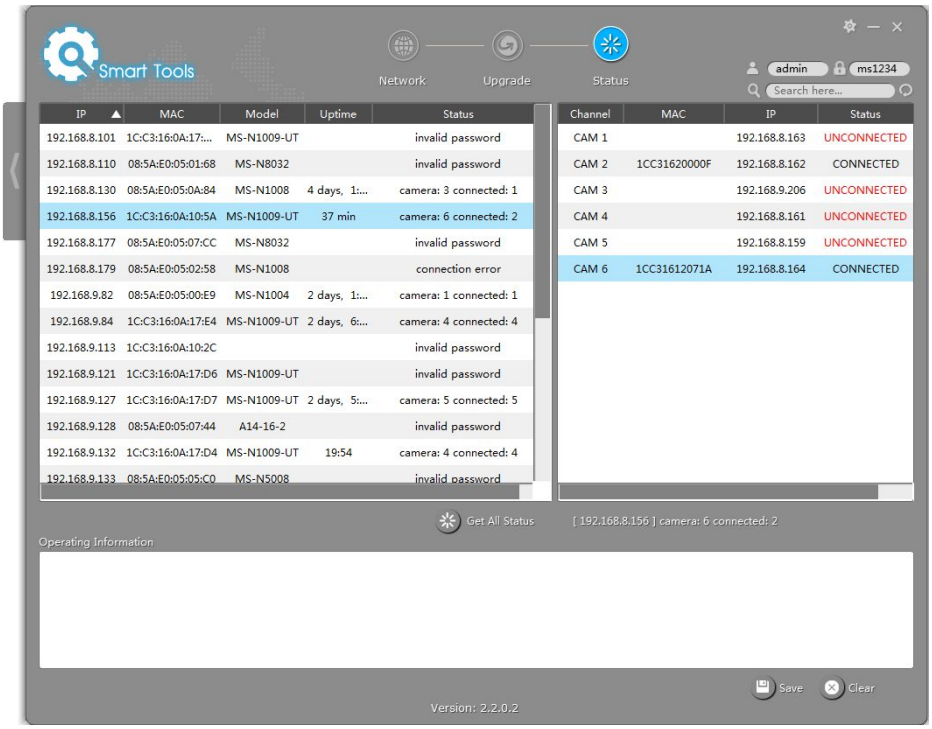


Figure 3-10 Status

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

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

Click the Calculators button, the page is as following:

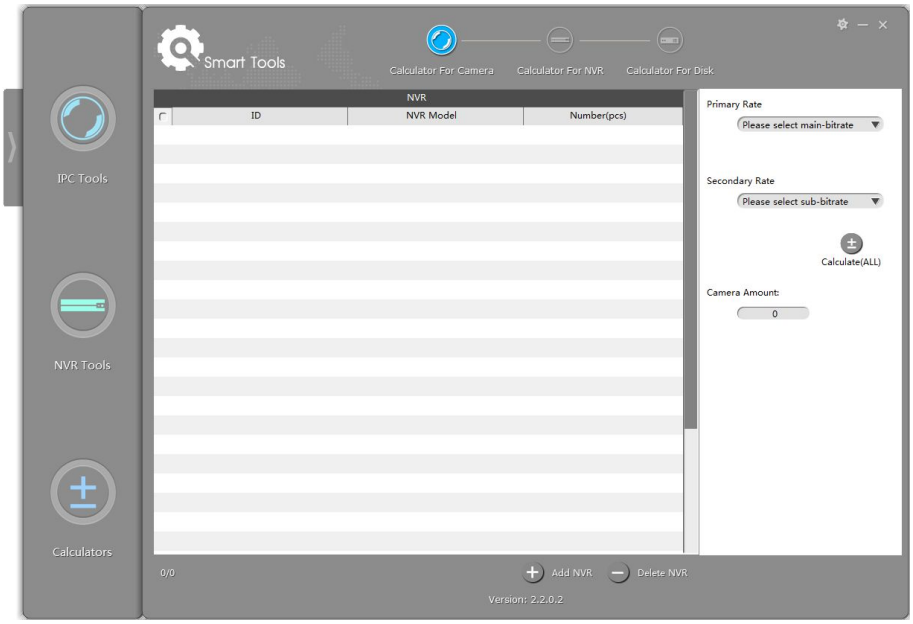
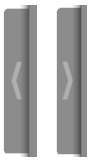


Figure 3-11 Calculators

Table 3-6 Icons of the Calculators page

Icon	Function
	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.

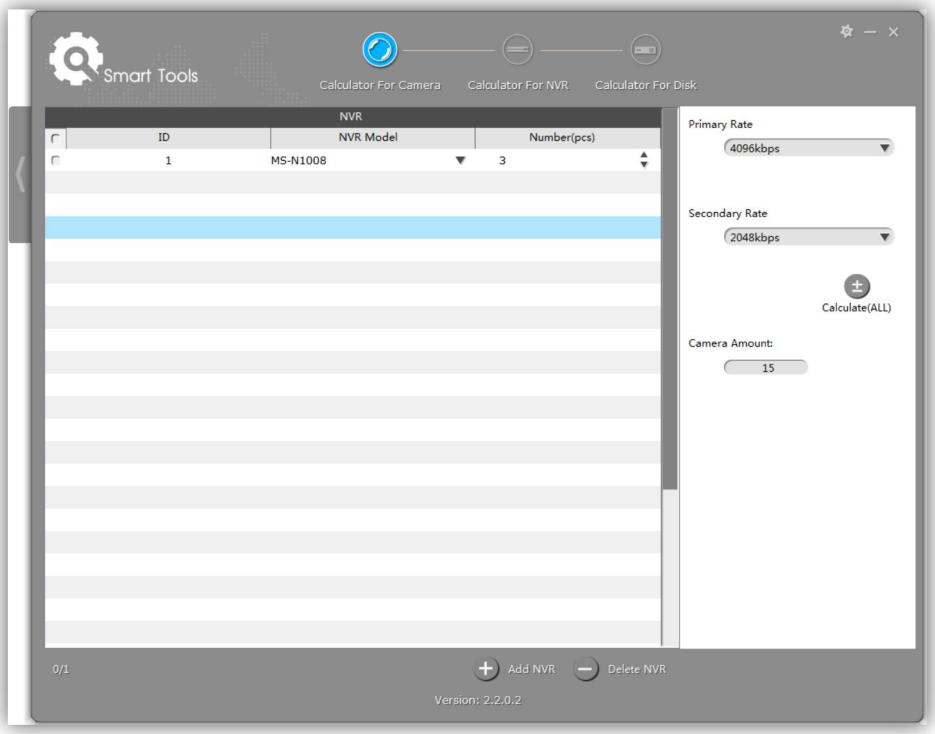


Figure 3-12 Calculator For Camera

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.

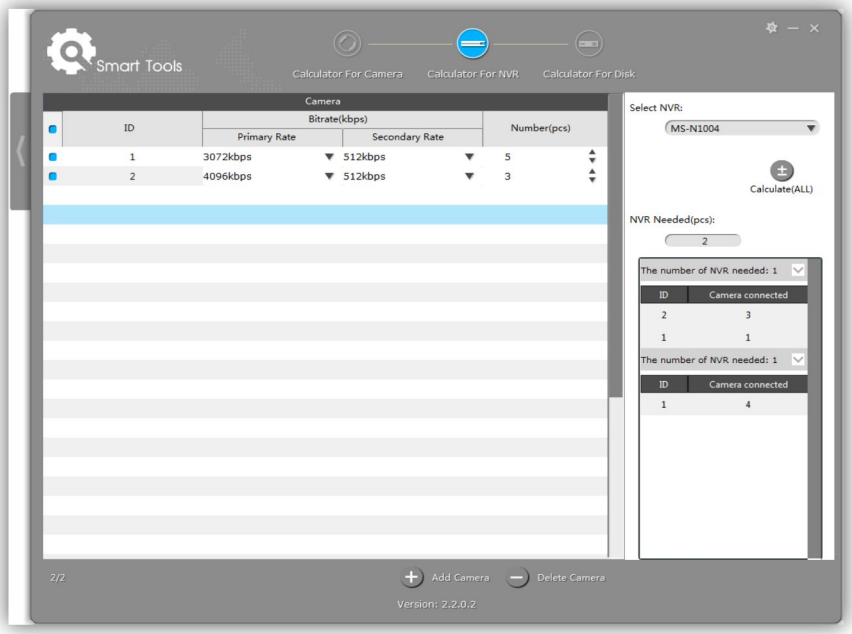


Figure 3-13 Calculator For NVR

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.

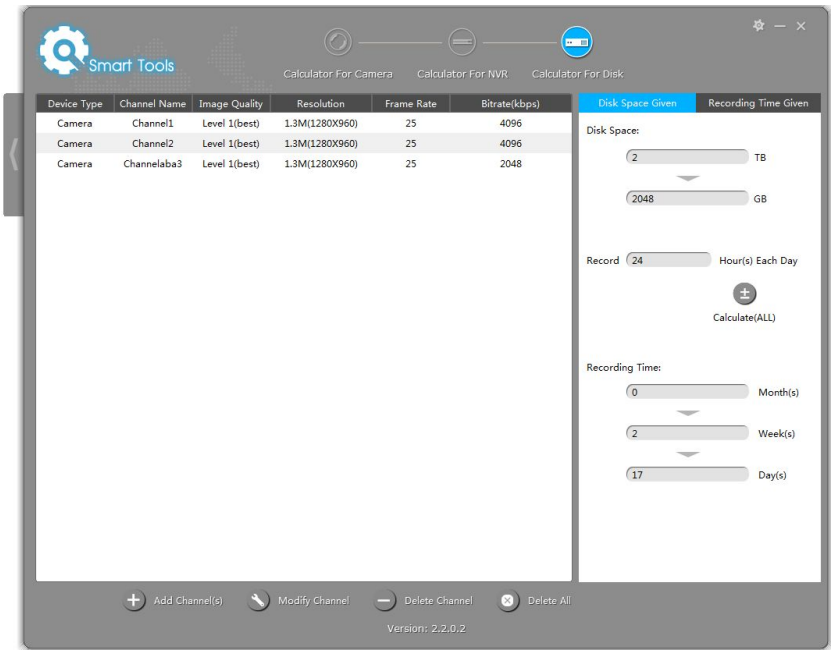


Figure 3-12(1) Calculator For Disk(Time)

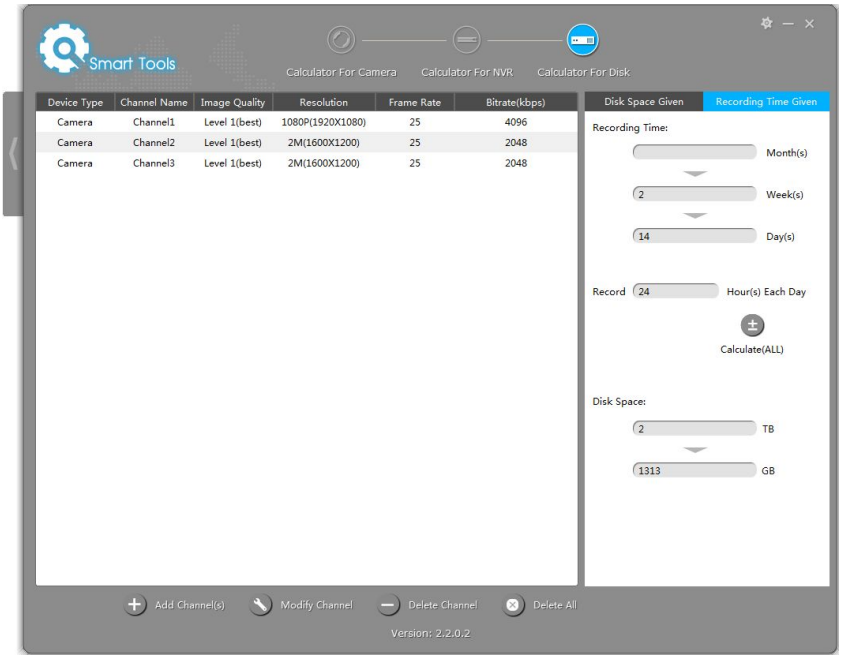
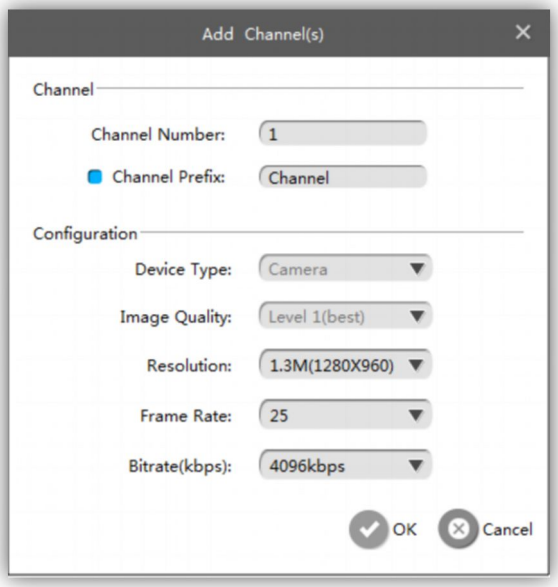


Figure 3-12(2) Calculator For Disk(Storage)

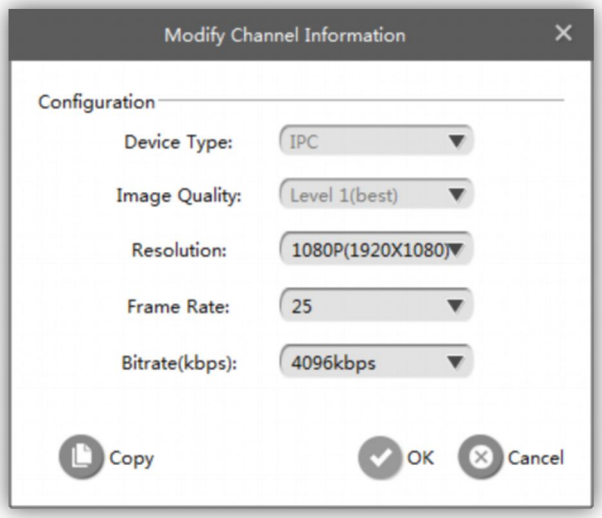
Table 3-7 Sub interfaces of the Calculators

Add Channel(s)	**Add Channel(s):**

<table>
<tr>
<td></td>
<td>


Channel:
Channel Number: The number you want to add.
Channel Prefix: You can edit the channel prefix by yourself.

Configuration:
Device Type: The device type.
Image Quality: Image 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.
</td>
</tr>
<tr>
<td>Modify Channel</td>
<td>
Modify Channel:



Configuration:
Device Type: The device type.
Image Quality: Image quality.
</td>
</tr>
</table>

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

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