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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
- Simple batch firmware upgrade and online firmware upgrade for both Milesight cameras and network video recorders
- 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
- Active cameras and NVRs when using them for the first time
Chapter II Installation

2.1 System Operating Environment

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: Check the box ‘I accept the terms in the <License Agreement>;’

Step2: Choose ‘Custom installation’ to select the destination folder where Milesight Smart Tools will be installed, or choose ‘Default installation’ to install it in the default destination folder;
**Step3:** Click ‘Quick installation’ button to complete the installation.

**Note:**
The language of Smart Tools is based on the language of computer systems.
Chapter III Operations and settings

The home page of the software is as follows:

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

**Note:**
1) Smart Tools currently supports 5 languages: Simplified Chinese, Traditional Chinese, English, Japanese, Korean, Russian;
2) Smart Tools currently supports 5 resolution: 1024*768, 1280*1024, 1440*900, 1920*1080.

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 firmware upgrades and online firmware upgrade
- Support configuration of Fisheye Camera
- Support batch modification of the device name
- Support batch primary/secondary/third stream parameter settings
- Support batch audio settings
- Support batch modification of the username and password
- Support batch time settings
- Support batch OSD settings
- Support batch HTTP/RTSP port settings
- Support batch DDNS parameters settings
Support batch restart or restore the device
Support batch image parameters settings
Support settings for Brightness/Contrast/Saturation/Sharpness/Noise Reduction/Exposure Level/Exposure Time/Day(Night) Mode/Power Line Frequency/Wide Dynamic Range/Local Display Video

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

![IPC Tools Image]

**Figure 3-2 IPC Tools**

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

<table>
<thead>
<tr>
<th>Icon</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Home button" /></td>
<td>Home button.</td>
</tr>
<tr>
<td><img src="image" alt="Language" /></td>
<td>Change the language, resolution and check the version information of software.</td>
</tr>
<tr>
<td><img src="image" alt="Window" /></td>
<td>Minimize/ Maximize/ Close the window.</td>
</tr>
<tr>
<td><img src="image" alt="Network" /></td>
<td>Network: Modify IP address, Port, Netmask, Gateway, etc.</td>
</tr>
<tr>
<td><img src="image" alt="Setting" /></td>
<td>Setting: Video, Audio, System, OSD, Network Port, DDNS and UPnP settings.</td>
</tr>
<tr>
<td><img src="image" alt="Preview" /></td>
<td>Preview: Preview, change the image parameters, etc.</td>
</tr>
<tr>
<td><img src="image" alt="Upgrade" /></td>
<td>Upgrade: Upload config file, Upgrade, Reboot and Reset.</td>
</tr>
<tr>
<td><img src="image" alt="Username" /></td>
<td>Input correct username and password of one camera or cameras to get further operations.</td>
</tr>
<tr>
<td><img src="image" alt="Password" /></td>
<td>Tick the checkbox right of the Password to remember the current password when you restart and re-install Smart Tools.</td>
</tr>
<tr>
<td><img src="image" alt="Search" /></td>
<td>Input any information (Device Name, MAC, IP address, Port, Netmask, Gateway, Model and Version), and you will find your target more quickly.</td>
</tr>
</tbody>
</table>
Note:

1) If your camera shows ‘Inactive’ in the status bar, you need to click [Activate] to set the password when using it for the first time. Password must be 8 to 32 characters long. You can also set the Security Question for your camera here, in case you forget the password, you can reset the password by answering the Security Question correctly.

2) If your camera shows ‘Active’ in the status bar, you can use it directly without activating it. If you click [Activate], it will display ‘The activated device is not allowed to reactivate’.

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 1) to list the camera one by one;
Step3: Click interested cameras, and then you can change its 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 2) to skip to the web of the camera; Details are shown as the Figure 3-3.

![Figure 3-3 Network](image)

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

<table>
<thead>
<tr>
<th>Network</th>
<th>Operating Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select All</td>
<td>Save</td>
</tr>
<tr>
<td>Device Name</td>
<td>Clear</td>
</tr>
<tr>
<td>IP</td>
<td></td>
</tr>
<tr>
<td>Port</td>
<td></td>
</tr>
<tr>
<td>Netmask</td>
<td></td>
</tr>
<tr>
<td>Gateway</td>
<td></td>
</tr>
<tr>
<td>DNS</td>
<td></td>
</tr>
<tr>
<td>Export Device List</td>
<td>Save</td>
</tr>
<tr>
<td>Modify</td>
<td>Clear</td>
</tr>
</tbody>
</table>

When click the ‘Setting’ button, you can set the related parameters of the Video, Audio, System, User, OSD, Network and Fisheye. Details are shown as follows.
**Video Setup:**

Here you can setup the parameters of the Primary Stream, the Secondary Stream and Tertiary Stream:

- **Video Codec:** H.265(if camera supports)/H.264/MJPEG/MPEG4 (if camera supports) available.
- **Frame Size:** the resolution.
- **Bit Rate:** transmitting bits of data per second.
- **Profile:** Base/ Main/ High(only H.264 supports).
- **Smart Stream:** It is optional to turn On/Off Smart Stream mode. Smart Stream mode remarkably reduces the bandwidth and the data storage requirements for network cameras while ensuring the high quality of images.
- **Level:** Level 1~10 are available to meet your need if you turn on Smart Stream.
- **Bit Rate Control:** CBR/ VBR.
- **I-frame Interval:** Set the I-frame interval to 1~120.
- **Maximum Frame Rate:** maximum refresh frame rate per second.
Audio Setup:

Here you can setup the parameters of Audio:

**Enable Audio:** Enable or Disable the Audio.

**Audio Mode:** Only Mic, Only Speaker and Both Mic & Speaker are available.

**Audio Input:**
- **Denoise:** Enable or Disable the Denoise.
- **Encoding:** G711-ULaw, G711-ALaw, AAC LC are available.
- **Sample Rate:** 8KHz and 16KHz are available.
- **Adjust Input Gain and Alarm Level.**

**Audio Output:**
- **Adjust Output Volume.**

System Setup:

Here you can setup the parameters of the System:

**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.

User Setup:

Account Management:
Username: Modify the username.
Password: Modify the password. Password must be 8 to 32 characters long.
Confirm: Enter the password again to make a confirmation.
Set the Security Question: Set the Security Question for your camera, in case you forget the password, you can reset the password by answering the Security Question correctly. There are twelve default questions below, you can also customize the Security Question.

OSD settings

OSD Setup:
**Video Stream:** Here you can choose the stream of OSD.

**Font Size:** Smallest, Small, Medium, Large, Largest and Auto are available.

**Video Title:** Input the video title.

**Text Position:** Top-Left, Top-Right, Bottom-Left and Bottom-right are available.

**Show Timestamp:** Enable/Disable the timestamp.

**Date Position:** Top-Left, Top-Right, Bottom-Left and Bottom-Right are available.

**Date Format:** YYYY-MM-DD, MM/DD/YYYY, DD/MM/YYYY are available.

**Copy to other stream:** Copy the OSD information to other stream.

---

**Network Setup:**

**Network Settings**

**Port:** Here you can set up the HTTP Port and RTSP Port.

**DDNS 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.

**DHCP:** Check the checkbox to enable the DHCP function.

---

**Fisheye settings**

**Fisheye Setup:**
Compatible Mode: Bundle-Stream Mode and Multi-Channel Mode are available.

Bundle-Stream Mode: the Bundle-Stream Mode combines all the channels into one, and then sending to NVR or VMS, which is easy for compatibility.

Multi-Channel Mode: the Multi-Channel Mode sends all the original channels to NVR or VMS, so the channels can be modified separately.

Note: We recommend Bundle-Stream mode with Milesight NVR.

Zoom Status: Support to set display time of Zoom Status OSD.
- 2 seconds/5 seconds/10 seconds/Always Open/Always Close are available.

Preset Status: Support to set display time of Preset Status OSD.
- 2 seconds/5 seconds/10 seconds/Always Open/Always Close are available.

Patrol Status: Support to set display time of Patrol Status OSD.
- Always Open/Always Close are available.

Auto Scan Status: Support to set display time of Auto Scan Status OSD.
- Always Open/Always Close are available.

3.1.3 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.
### Display Settings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power Line Frequency</strong></td>
<td>60HZ flicker for NTSC mode and 50HZ flicker for PAL mode.</td>
</tr>
<tr>
<td><strong>Day/Night Mode</strong></td>
<td>Night Mode, Day Mode, Auto Mode and Customize are available.</td>
</tr>
<tr>
<td><strong>Day To Night Value</strong></td>
<td>This is the sensitivity for switching Day Mode to Night Mode. When IR Light Sensor Current Value is lower than this value, it will switch Day Mode to Night Mode.</td>
</tr>
<tr>
<td><strong>Night To Day Value</strong></td>
<td>This is the sensitivity for switching Night Mode to Day Mode. When IR Light Sensor Current Value is higher than this value, it will switch Night Mode to Day Mode.</td>
</tr>
<tr>
<td><strong>Corridor Mode</strong></td>
<td>Off, Clockwise 90° and Anticlockwise 90° are available.</td>
</tr>
<tr>
<td><strong>Image Rotation</strong></td>
<td>Off, Rotating 180°, Flip Horizontal and Flip Vertical are available.</td>
</tr>
</tbody>
</table>

### Enhancement

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IR Balance Mode</strong></td>
<td>There is an option to turn On/Off the IR LED. IR Balance Mode would avoid the problem of overexposure and darkness, and the IR LED will change according to the actual illumination.</td>
</tr>
<tr>
<td><strong>White Balance</strong></td>
<td>To restore white objects, remove the color distortion caused by the environment light. Auto White Balance, Manual White Balance, Incandescent Lamp, Warm Light Lamp, Natural Light and Fluorescent Lamp are available.</td>
</tr>
<tr>
<td><strong>Digital Anti-fog Mode</strong></td>
<td>This function is only for H.265 series. Better image effect in foggy weather.</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Digital Image Stabilisation</strong></td>
<td>This function is only for H.265 series. Decrease the blur and shakiness of the image.</td>
</tr>
<tr>
<td><strong>BLC Region</strong></td>
<td>Back Light Compensation. <strong>Off and Centre</strong> are available.</td>
</tr>
<tr>
<td><strong>Wide Dynamic Range</strong></td>
<td>This function can capture and display both bright and dark areas in the same frame, which enables details of objects in both bright and dark areas to be visible. <strong>Off, On and Customize</strong> are available.</td>
</tr>
<tr>
<td><strong>Wide Dynamic Level</strong></td>
<td>Set WDR with <strong>Low/High/Auto</strong> level.</td>
</tr>
<tr>
<td><strong>High Light Compensation</strong></td>
<td>This function is only for H.265 series to adjust the brightness to a normal range when the light is strong. <strong>Off, General Mode, Enhanced Mode</strong> are available.</td>
</tr>
<tr>
<td><strong>HLC Level</strong></td>
<td>Select a level for HLC.</td>
</tr>
<tr>
<td><strong>Image Configuration</strong></td>
<td><strong>Brightness</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Contrast</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Saturation</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Sharpness</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Noise Reduction</strong></td>
</tr>
</tbody>
</table>

### 3.1.4 Upgrade

Upgrade is used for managing the firmware upgrades. Here you can upgrade several devices' firmware with one file at a time.
Figure 3-6 Upgrade

Table 3-5 Parameter of the Upgrade Page

<table>
<thead>
<tr>
<th>Option</th>
<th>Function Introduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Reboot]</td>
<td>Click “Reboot” button to restart the selected cameras.</td>
</tr>
<tr>
<td>![Reset]</td>
<td>Click “Reset” button to reset the selected cameras to factory default settings.</td>
</tr>
<tr>
<td>![Keep the IP]</td>
<td>Enable the “Keep the IP” option to keep the IP configuration when resetting the selected cameras.</td>
</tr>
<tr>
<td>![Keep the User]</td>
<td>Enable the “Keep the User” option to keep the User configuration when resetting the selected cameras. <strong>Note</strong>: If you disable the “Keep the User” option when resetting the camera, the camera will be reset to the ‘Inactive’ status, you need to set a password for it again.</td>
</tr>
<tr>
<td>![Browse]</td>
<td>Click the “Browse” button to choose a config file or a firmware file.</td>
</tr>
<tr>
<td>![Upload config file]</td>
<td>Select the camera, enter the correct username and password, click the “Browse” button to choose a config file, and then click “Upload config file” button to upload a configuration file.</td>
</tr>
<tr>
<td>![Firmware Online]</td>
<td>Click the “Firmware Online” button to check firmware online, and Click “ ” to directly download the latest firmware on the website for different models.</td>
</tr>
</tbody>
</table>
Check the downloaded firmware in “Downloads”.

Click “” to select the firmware to upgrade camera, click “” to open containing folder.

Select the camera, enter the correct username and password. Click the “Browse” button to choose a firmware file, and then click the “upgrade” Button to upgrade the camera, or you can click the “Firmware Online” button to directly download the latest firmware on the website to upgrade different models.

The upgrade will be completed after the progress bar disappeared.

Enable the “Restore after upgrading” option to restore the selected cameras to factory default after upgrading.

10.XX.XX.XX is for MS-C2XXX-XX
20. XX.XX.XX is for MS-C3XXX-XX
30.XX.XX.XX is for MS-CXXXX-XXA
40.XX.XX.XX is for MS-CXXXX-XXB
42.XX.XX.XX is for MS-C8262-XXB/ MS-C9674-PB(V100)
43.XX.XX.XX is for MS-C9674-PB(V101)

Note: When you need to upgrade firmware of your network cameras, the firmware file should match with the devices, otherwise the upgrade will fail.
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 firmware upgrades and online firmware upgrade
✧ Support batch modification of the device name
✧ Support batch modification of the username and password
✧ 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 3-6 Icons of the NVR Tools Page

<table>
<thead>
<tr>
<th>Icon</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Home button" /></td>
<td>Home button.</td>
</tr>
<tr>
<td><img src="image" alt="Language/Resolution/Check Version" /></td>
<td>Change the language, resolution and check the version information of software.</td>
</tr>
<tr>
<td><img src="image" alt="Minimize/Maximize/CLOSE" /></td>
<td>Minimize/Maximize/CLOSE the software.</td>
</tr>
<tr>
<td><img src="image" alt="Network" /></td>
<td>Network: modify IP address, Port, Netmask, Gateway, etc.</td>
</tr>
</tbody>
</table>
Setting: System.
Upgrade: Upgrade, Reboot and Reset.
Status: Connected cameras and their MAC/IP/Status.

Input correct username and password of one camera or cameras to get further operations.
Tick the checkbox right of the Password to remember the current password when you restart and re-install Smart Tools.

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.

**Note:**

3) If your NVR shows ‘Inactive’ in the status bar, you need to click **Activate** to set the password when using it for first time. Password must be 8 to 32 characters long.

   You can also set the Security Question for your NVR here, in case you forget the password, you can reset the password by answering the Security Question correctly.

4) If your NVR shows ‘Active’ in the status bar, you can use it directly without activating it. If you click **Activate**, it will display ‘The activated device is not allowed to reactivate’.
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 1) 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 2) to skip to the web of the NVR;
Details are shown as the Figure 3-8.

![Figure 3-8 Network](image)

Table 3-7 Parameter of the Network page

<table>
<thead>
<tr>
<th>Optional</th>
<th>Select All</th>
<th>Click the button(marked 3 in the picture), Select all cameras at a time.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Start IP Address</td>
<td>Modify all the selected cameras’ IP addresses from this one.</td>
</tr>
<tr>
<td></td>
<td>Device Name</td>
<td>Modify Device Name.</td>
</tr>
<tr>
<td></td>
<td>IP</td>
<td>Modify the selected device into this IP address.</td>
</tr>
<tr>
<td></td>
<td>Port</td>
<td>Modify the HTTP port.</td>
</tr>
<tr>
<td></td>
<td>Netmask</td>
<td>Modify the net mask.</td>
</tr>
<tr>
<td></td>
<td>Gateway</td>
<td>Modify the gateway.</td>
</tr>
<tr>
<td></td>
<td>DNS</td>
<td>Modify the DNS server.</td>
</tr>
<tr>
<td></td>
<td>Modify</td>
<td>Save the changes.</td>
</tr>
</tbody>
</table>
3.2.2 Setting

Here you can setup date/time of system and upload configuration file to NVR.

Figure 3-9 Setting

Table 3-8  Parameter of the Previews Page

System Setup:

- **Timezone**: Enable to select different Timezone.
- **Daylight saving time**: Disable and Automatic are available.
- **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.
3.2.3 Upgrade

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

User Setup:

**Account Management:**
- **Username:** Modify the username.
- **Password:** Modify the password. Password must be 8 to 32 characters long.
- **Confirm:** Enter the password again to make a confirmation.

**Set the Security Question:** Set the Security Question for your camera, in case you forget the password, you can reset the password by answering the Security Question correctly.

There are twelve default questions below, you can also customize the Security Question.
Table 3-8  Parameter of the Upgrade Page

<table>
<thead>
<tr>
<th>Option</th>
<th>Function Introduction</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Reboot" /></td>
<td>Click “Reboot” button to restart the selected NVRs.</td>
</tr>
<tr>
<td><img src="image" alt="Reset" /></td>
<td>Click “Reset” button to reset the selected NVRs to factory default settings.</td>
</tr>
<tr>
<td><img src="image" alt="Keep the IP" /></td>
<td>Enable the “Keep the IP” option to keep the IP configuration when resetting the selected NVRs.</td>
</tr>
<tr>
<td><img src="image" alt="Keep the User" /></td>
<td>Enable the “Keep the User” option to keep the User configuration when resetting the selected NVRs.</td>
</tr>
<tr>
<td><img src="image" alt="Browse" /></td>
<td>Click the “Browse” button to choose a config file or a firmware file.</td>
</tr>
<tr>
<td><img src="image" alt="Firmware Online" /></td>
<td>Click the “Firmware Online” button to check firmware online, and Click “ ” to directly download the latest firmware on the website for different models.</td>
</tr>
</tbody>
</table>

**Note:** If you disable the “Keep the User” option when resetting the NVR, the NVR will be reset to the ‘Inactive’ status, you need to set a password for it again.

Check the downloaded firmware in “Downloads”.

Click “ ” to select the firmware to upgrade NVR, click “ ” to open
containing folder.

Select the NVR, enter the correct username and password. Click the “Browse” button to choose a firmware file, and then click the “upgrade” Button to upgrade the NVR, or you can click the “Firmware Online” button to directly download the latest firmware on the website to upgrade different models. The upgrade will be completed after the progress bar disappeared.

Enable the “Restore after upgrading” option to restore the selected NVRs to factory default after upgrading.

1.XX.XX.XX is for MS-N8016/8032/7016
2.XX.XX.XX is for MS-N5008
30.XX.XX.XX is for MS-N5016
31.XX.XX.XX is for MS-N1004/1008
61.XX.XX.XX is for MSN1009-UT
71.XX.XX.XX is for MS-NXXXX-U(P)H
72.XX.XX.XX is for MS-NXXXX-UP

**Note:** When you need to upgrade firmware of your NVRs, the firmware file should match with the devices, otherwise it will fail.

### 3.2.4 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 username and password locally.
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:
<table>
<thead>
<tr>
<th>Icon</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Icon" /></td>
<td>Home button.</td>
</tr>
<tr>
<td><img src="image2" alt="Icon" /></td>
<td>Change the language, resolution and check the version information of software.</td>
</tr>
<tr>
<td><img src="image3" alt="Icon" /></td>
<td>Minimize/ Maximize/ Close the software.</td>
</tr>
<tr>
<td><img src="image4" alt="Icon" /></td>
<td>Calculator For Camera.</td>
</tr>
<tr>
<td><img src="image5" alt="Icon" /></td>
<td>Calculator For NVR.</td>
</tr>
<tr>
<td><img src="image6" alt="Icon" /></td>
<td>Calculator For Disk.</td>
</tr>
<tr>
<td><img src="image7" alt="Icon" /></td>
<td>Unfold/Fold button, click this button to unfold/fold the main menu.</td>
</tr>
</tbody>
</table>

### 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 total number of NVR channels as well as the number of the cameras you can add to your NVRs.

![Figure 3-13 Calculator For Camera](image8)
3.3.2 Calculator For NVR

Choose your cameras’ bit rate for primary and 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.

![Calculator For NVR](image)

Figure 3-14 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.

![Calculator For Disk(Time)](image)

Figure 3-15-1 Calculator For Disk(Time)
Figure 3-15-2 Calculator For Disk(Storage)

Table 3-10 Sub interfaces of the Calculators

<table>
<thead>
<tr>
<th>Add Channel(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Channel:</strong></td>
</tr>
<tr>
<td><strong>Channel Number:</strong> The number you want to add.</td>
</tr>
<tr>
<td><strong>Channel Prefix:</strong> You can edit the channel prefix by yourself.</td>
</tr>
<tr>
<td><strong>Configuration:</strong></td>
</tr>
<tr>
<td><strong>Device Type:</strong> The device type.</td>
</tr>
<tr>
<td><strong>Image Quality:</strong> Image quality.</td>
</tr>
<tr>
<td><strong>Resolution:</strong> Choose the wanted resolution of the device.</td>
</tr>
<tr>
<td><strong>Frame Rate:</strong> The Frame Rate of the device.</td>
</tr>
<tr>
<td><strong>Bitrate:</strong> The bit rate of the device.</td>
</tr>
</tbody>
</table>

Modify Channel | Modify Channel:
Configuration:
Device Type: The device type.
Image Quality: Image quality.
Resolution: Choose the wanted resolution of the device.
Frame Rate: The Frame Rate of the device.
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.
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.

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