HIKVISION

Hik Design Tool

User Manual

User Manual

COPYRIGHT ©2016 Hangzhou Hikvision Digital Technology Co., Ltd.

ALL RIGHTS RESERVED.

Any and all information, including, among others, wordings, pictures, graphs are the properties of Hangzhou Hikvision Digital Technology Co., Ltd. or its subsidiaries (hereinafter referred to be "Hikvision"). This user manual (hereinafter referred to be "the Manual") cannot be reproduced, changed, translated, or distributed, partially or wholly, by any means, without the prior written permission of Hikvision. Unless otherwise stipulated, Hikvision does not make any warranties, guarantees or representations, express or implied, regarding to the Manual.

About this Manual

This Manual is applicable to Hik Design Tool Software.

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version in the company website (http://overseas.hikvision.com/en/).

Please use this user manual under the guidance of professionals.

Trademarks Acknowledgement

 and other Hikvision's trademarks and logos are the properties of Hikvision in various jurisdictions. Other trademarks and logos mentioned below are the properties of their respective owners.

Legal Disclaimer

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THE PRODUCT DESCRIBED, WITH ITS HARDWARE, SOFTWARE AND FIRMWARE, IS PROVIDED "AS IS", WITH ALL FAULTS AND ERRORS, AND HIKVISION MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY, SATISFACTORY QUALITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT OF THIRD PARTY. IN NO EVENT WILL HIKVISION, ITS DIRECTORS, OFFICERS, EMPLOYEES, OR AGENTS BE LIABLE TO YOU FOR ANY SPECIAL, CONSEQUENTIAL,

INCIDENTAL, OR INDIRECT DAMAGES, INCLUDING, AMONG OTHERS, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, OR LOSS OF DATA OR DOCUMENTATION, IN CONNECTION WITH THE USE OF THIS PRODUCT, EVEN IF HIKVISION HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

REGARDING TO THE PRODUCT WITH INTERNET ACCESS, THE USE OF PRODUCT SHALL BE WHOLLY AT YOUR OWN RISKS. HIKVISION SHALL NOT TAKE ANY RESPONSIBILITIES FOR ABNORMAL OPERATION, PRIVACY LEAKAGE OR OTHER DAMAGES RESULTING FROM CYBER ATTACK, HACKER ATTACK, VIRUS INSPECTION, OR OTHER INTERNET SECURITY RISKS; HOWEVER, HIKVISION WILL PROVIDE TIMELY TECHNICAL SUPPORT IF REQUIRED.

SURVEILLANCE LAWS VARY BY JURISDICTION. PLEASE CHECK ALL RELEVANT LAWS IN YOUR JURISDICTION BEFORE USING THIS PRODUCT IN ORDER TO ENSURE THAT YOUR USE CONFORMS THE APPLICABLE LAW. HIKVISION SHALL NOT BE LIABLE IN THE EVENT THAT THIS PRODUCT IS USED WITH ILLEGITIMATE PURPOSES.

IN THE EVENT OF ANY CONFLICTS BETWEEN THIS MANUAL AND THE APPLICABLE LAW, THE LATER PREVAILS.

Contents

Chapter 1 Introduction

1.1 Overview

The Hik Design Tool is a graphical drawing application that helps you to design surveillance solution with multiple Hikvision products. You can search and select a desired product to draw system diagram with product shapes including network camera, network speed dome, analog speed dome, analog camera, DVR, NVR, and switch. You can also edit the added product properties and edit the device quantity according to the actual needs. After the diagram is completed, you can calculate the required bandwidth and storage and then export the diagram.

1.2 System Requirements

Operating System: Microsoft Windows 10/Windows 8/Windows 8.1/Windows 7 (32/64-bit), Windows XP SP3 (32-bit)
CPU: Intel Core 2 or above
**RAM:** 1G or above
Video Card: RADEON X700 Series or above
Display: 1024*768 resolution or above

1.3 Conventions

In order to simplify the description, we define the "Hik Design Tool Software" as "software" in the following chapters.

1.4 Interface Introduction

After installing the software, click on the desktop to run the software. The main interface of the software is shown below:
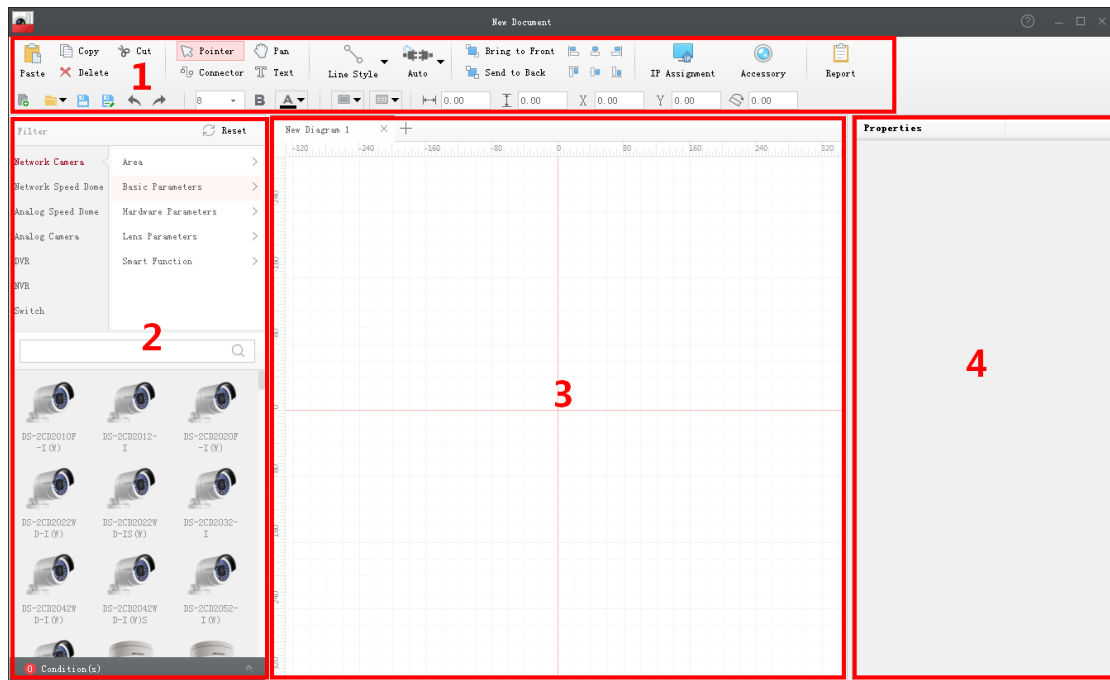
1	Menu Bar	Display the buttons for drawing a diagram. For details about the buttons, refer to *Chapter 3.1 Buttons on Menu Bar*.
2	Device Panel	Display the device type and you can search and filter the device according to your actual needs.
3	Diagram Area	Provide drawing system diagram with the devices and connectors for the solution.
4	Device Properties	Display the device properties and parameters. You can edit it according to your actual needs.

Click the ⊙ button in the upper-right corner to view the version information and you can click **User Manual** to get the User Manual of the software.

Chapter 2 Solution Management

Purpose:

After running the software, a new solution has been created automatically. After designing the diagram, you can save the solution to *.dtp file. You can also create a new solution for further operation or open a created solution to edit it.

The following buttons are available on the menu bar.

Icon	Name	Shortcut
	New	Ctrl + N
	Open	Ctrl + O
	Save	Ctrl + S
	Save as	Ctrl + Shift + S

2.1 Creating New Solution

Click button on the menu bar (or press shortcut key *[Ctrl + N]*) to create a new solution. If you have already opened a solution, you can select to save it and then a new and empty solution will be created automatically.

2.2 Opening Solution

Click button on the menu bar (or press shortcut key *[Ctrl + O]*) to select the created solution file including the drawn diaram and device properties.

Browse and select the target solution (in *.dtp format) and click **Open** to open it. The drawn diagram and device properties will be displayed.

2.3 Saving Solution

2.3.1 Save

After designing the solution, you can click on the menu bar (or press shortcut key *[Ctrl + S]*) to save the current solution including diagrams and added device properties.

In the pop-up Save File dialog box, select the desired location and click **Save** to save the solution.

When saving the solution file which has already been saved, click and it saves the changes without popping up to select the location.

The solution file is stored in *.dtp format.

2.3.2 Save as

If the current solution file has already been saved, you can click on the menu bar (or press shortcut key *[Ctrl + Shift + S]*) to save the current solution as a new solution file. In the pop-up Save File dialog box, select the desired location and click **Save** to save the solution.

Chapter 3 Designing a Solution

Purpose:

You can add devices to the Diagram area and draw the system diagram by connectors. After adding the devices, you can set the device quantity and set the device property and parameters accord to the actual solution needs.

You can also assign IP addresses in batch for them. You can set the accessories and lens for the cameras.

3.1 Buttons on Menu Bar

The following buttons are available on the menu bar for drawing the diagram.

Button	Name	Description
	Paste [Ctrl + V]	Paste the contents of the Clipboard.
	Copy [Ctrl + C]	Copy the selection and put it on the Clipboard.
	Delete [Delete]	Delete the selection.
	Cut [Ctrl + X]	Cut the selection and put it on the Clipboard.
	Undo [Ctrl + Z]	Revoke the last step.
	Cancel Undo [Ctrl + Shift + Z]	Cancel the Undo operation.
	Pointer	Select, move, and resize objects.
	Connector	Click to change to Connector Tool and draw connectors between objects.
	Pan	Click to change to Pan Tool and drag to move the diagram. Or click-and-hold the middle mouse button and drag to move the diagram.
	Text	Click to change to Text Tool and insert text box.
	Font Size	After inserting the text, you can set the font size, font color, and make the text bold.
	Bold	
	Font Color	
	Line Style	Select the line style for the connector. You can set it as Straight Line, Polyline, and Bezier.
	Connector Type	Select the connector type as Auto (auto connection), 10M (10Mbps network cable), 100M (100Mbps network cable), 1G (1Gbps network cable), 10G (10Gbps network cable), Coaxial (analog coaxial cable).
	Background Color	Select the color for the background of the diagram.
	Grid Color	Select the color for the grid of the background.
	Bring to Front	Bring the selected object in front of all objects so that no part of it is hidden behind another object.

	Send to Back	Send the selected object behind all other objects.
	Align Left	Align the selected objects to the left.
	Align Center	Align the selected objects to the center.
	Align Right	Align the selected objects to the right.
	Align Top	Align the selected objects to the top.
	Align Middle	Align the selected objects to the middle.
	Align Bottom	Align the selected objects to the bottom.
	IP Assignment	Assign IP address for all the added network devices.
	Accessory	Set the bracket, housing, and lens for the added cameras.
	Report	Generate the report to view the diagram, device list, device information, and calculate the required bandwidth and storage based on the added device.

3.2 Adding Diagram Page to Solution

You can add multiple diagram pages to one solution. By default, one diagram is created after creating the solution.

New Diagram 1   ×   +

You can click ⊞ to open a new and empty diagram tab page.

Note: Up to 20 diagram pages can be added to one solution.

You can double click on the diagram tab to rename the diagram as desired.

To delete the diagram page, click ⊠ to close and delete the disgram. All the added devices, connectors, texts, etc., will be deleted as well.

3.3 Adding Device

Purpose:

You can add the devices, including network camera, network speed dome, analog speed dome, analog camera, DVR, NVR, and switch, to the diagram panel according to the actual needs.

The device panel is shown on the left as follows:
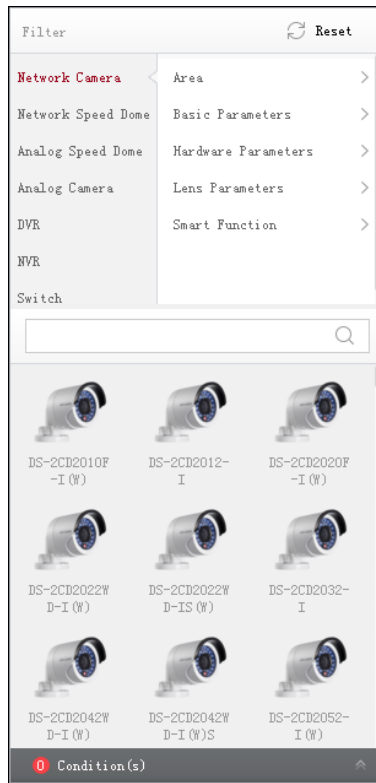
3.3.1 Filtering Device According to Device Features

You can filter the device to search and select a device according to device specification.

Steps:

1. Select the device category and its sub menus will display the functions or parameters as filter conditions.
2. Check to select the filter conditions.

   Here we take filtering Bullet Network Camera as an example.

   Click **Network Camera -> Basic Parameters -> Camera Type**, and then check the **Bullet** checkbox to select the Bullet as filter condition.

   Note:

   For some functions or parameters in the Level 4 menu, you can click **OR** or **AND** tab and then

select the filter conditions to set the matching rule.

- **OR:** Display the devices that match any of the selected filter conditions.
- **AND:** Display the devices that match all the selected filter conditions.

3. The devices that satisfied the selected conditions will be displayed below.
4. (Optional) You can click ![up arrow] to expand the filter condition panel to view all the selected conditions.

To delete the filter condition, move the mouse to the condition and click ![X] to remove it. You can click ![Reset] to clear all the conditions.

3.3.2 Searching Device According to Device Name

You can also search the device with the device name.
Steps:
1. In the search box, input the keyword of the device name

2. click ![search] to start searching the devices the name of which contain the keywords.

3. The devices that satisfied the search conditions will be displayed below.

3.3.3 Adding Device to the Diagram

After filtering or searching the device, the devices that satisfied the conditions will be displayed below. You can add the device to the diagram for drawing the diagram.
Steps:
1. In the device list, drag the device to the diagram area. The added device will be shown as follows (here we take analog speed dome as an example):
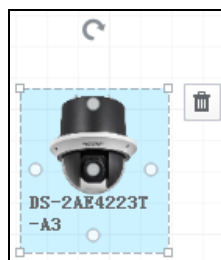
2. Click ![pointer] on the menu bar to switch to the pointer tool.

You can drag the device to adjust its position, and drag ⬚ to resize the device shape.
You can click and drag ↻ to rotate the device.

3. To delete the added device, select the device and click ✕ on the menu bar, or click 🗑 near the device to delete it. You can also select the device and press *Delete* key on the keyboard to delete it.

3.4 Drawing a Diagram

After adding the needed devices to the diagram, you can draw the diagram by setting the device location and drawing the connectors.

3.4.1 To Select Object(s)

1. Click ▷ on the menu bar to switch to the pointer tool.
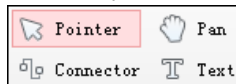
2. Click one object and the selected object displays as follows:
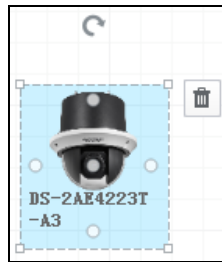
3. To select multiple objects:
   ● Click on the diagram and drag-to-select the multiple objects. All the objects in the selection area will be selected.
   ● Or you can hold down the *Ctrl* key on the keyboard and then click each object to select multiple ones.
   ● To quickly select all objects on the diagram, press *[Ctrl + A]* on the keyboard.
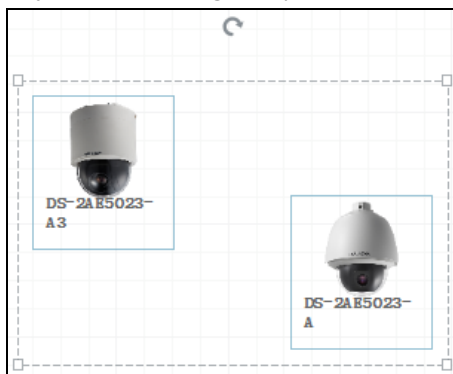
3.4.2 To Move Object

1. Click ▷ on the menu bar to switch to the pointer tool.

2. Select the object(s) and drag to move it to the desired location and then release the mouse button.

3.4.3 To Copy/Cut/Paste/Delete Object

1. The Paste, Copy, Cut, and Delete buttons are shown in the menu bar:
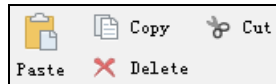
2. Select one or more objects from the diagram.
3. You can:
   - Click **Copy** to copy the selected object(s) and put it the Clipboard. You can also press the shortcut key *[Ctrl + C]* to realize this function.
   - Click **Cut** to remove the selected object from its original position and put the selected object(s) to the Clipboard. You can also press the shortcut key *[Ctrl + X]* to realize this function.
   - Click **Paste** to insert the object from the Clipboard. You can also press the shortcut key *[Ctrl + V]* to realize this function.
   - Click **Delete** to erase the selected object(s) from the diagram. You can also press the shortcut key *Delete* to realize this function.

3.4.4 To Draw Connector Between Objects

A connector indicates the physical linkage between two devices. For setting the network parameters for communication, please refer to *Chapter 3.8 Assigning IP Address*.
Perform the following steps to draw the connectors.
Steps:
1. Select the line style for the connector on the menu bar.
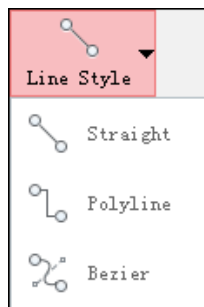
You can select Straight Line, Polyline, and Bezier Line as the line style for the connector.
   - **Straight:** Draw a straight line to connect two objects.
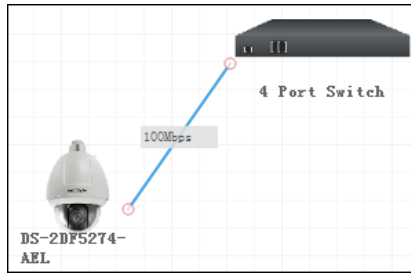
- **Polyline:** Draw a polygonal line to connect two objects. You can adjust one or two intermediate points to change shape of the polyline.
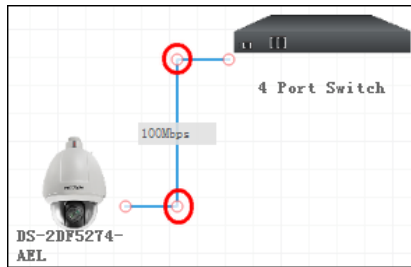
- **Bezier:** Draw a Bezier line to connect two objects. You can adjust two auxiliary points to change the angle of the Bezier line.
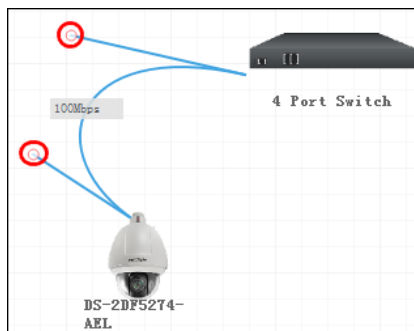
2. Select the connector type on the menu bar, which indicates transmittable data rate.
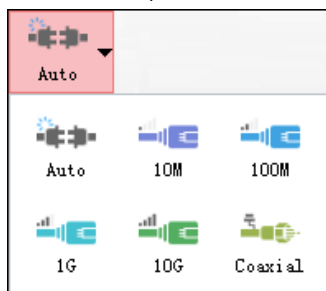
- **Auto:** Set the connector type automatically.
  - ➢ When connecting analog device, it will set the connector type as **Coaxial** automatically.
  - ➢ When connecting network camera or switch, it will set the connector type as **100M** automatically.
- **10M:** Network cable with maximum 10 Mbps transmission speed.
- **100M:** Network cable with maximum 100 Mbps transmission speed.
- **1G:** Network cable with maximum 1 Gbps transmission speed.
- **10G:** Network cable with maximum 10 Gbps transmission speed.
- **Coaxial:** Analog coaxial cable to connect analog devices.

3. Start to draw a connector to connect two devices. There are two ways to draw a connector.

● **Option 1: Draw Connector in Pointer Tool**

1) Click on the menu bar to switch to the pointer tool.

2) Click to select the object. Five connection points will display around the object, indicating where connections can be made
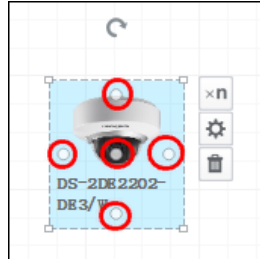
3) Click one of connection points on the object, and drag it to another object.

● **Option 2: Draw Connector in Connector Tool**

1) Click on the menu bar to switch to the pointer tool.
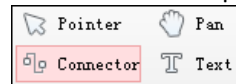
2) Click on the object and then drag it to another object to make the connector. When you release the mouse, the connector will be drawn.

3.4.5 To Add Text

In addition to devices, you can also add text to the diagram to insert a remark or description.

Steps:

1. Click on the menu bar to change to Text Tool.
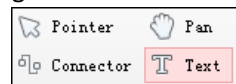
2. Click and drag on the diagram area to draw a textbox where text to be added.

3. In the textbox, input the text as desired and then click on the blank area to finish inputting.

4. You can select the text or textbox to set the font size, font color, or make the text bold with the following buttons on the menu bar.

4. Click on the menu bar to switch to the pointer tool.

You can drag the text to adjust its position, and drag to resize the textbox shape.

You can click and drag to rotate the textbox.

5. To delete the added text, select the textbox and click on the menu bar, or click near

the textbox to delete it. You can also select the textbox and press *Delete* key on the keyboard to delete it.

3.4.6 To Arrange Object

After adding the devices and texts, you can arrange them to draw a clear, neat, and professional diagram.

Steps:

1. Click ⬚ on the menu bar to switch to the pointer tool.
2. Click-and-drag to select multiple objects for arrangement.
3. Click the arrange buttons on the menu bar to realize the corresponding functions.

📦	Bring to Front	Bring the selected object in front of all objects so that no part of it is hidden behind another object.
📦	Send to Back	Send the selected object behind all other objects.
📦	Align Left	Align the selected objects to the left.
📦	Align Center	Align the selected objects to the center.
📦	Align Right	Align the selected objects to the right.
📦	Align Top	Align the selected objects to the top.
📦	Align Middle	Align the selected objects to the middle.
📦	Align Bottom	Align the selected objects to the bottom.

3.4.7 To Pan and Zoom the Diagram

You can move the diagram as desired to view the part you want to see. You can also zoom in or zoom out to get a closer or more global view of the diagram.

Pan the Diagram

There are two ways to pan the diagram.

● **Option 1: Pan the Diagram in Pan Tool**
   1. Click 🖐 on the menu bar to switch to the Pan tool.
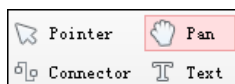
   2. The mouse pointer will change to hand shape 🖐. You can drag the diagram to move it to view other part of the diagram.

● **Option 2: Pan the Diagram by Middle Mouse Button**
   1. Click-and-hold the middle mouse button and the mouse pointer will change to hand shape 🖐.
   2. Click and drag the diagram to move it to view other part of the diagram.

Zoom the Diagram

You can scroll the mouse wheel to zoom in or zoom out the diagram.

3.5 Viewing Device Property

Purpose:
After adding the device to the diagram, you can view the device properties in the Properties panel on the right.

Steps:
1. Click [pointer icon] on the menu bar to switch to the pointer tool.
2. Click to select the added device on the diagram area, and its properties will be displayed on the Properties panel on the right.
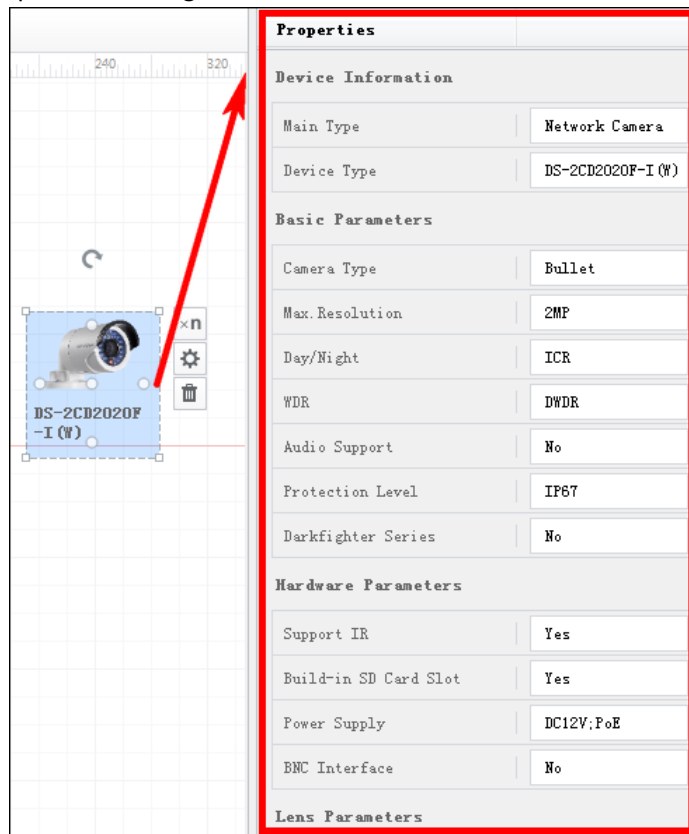
3. You can view the properties including device information, basic parameters, hardware parameters, etc.
    Note: The properties vary depending on the device category of the selected object.

3.6 Setting Device Quantity

For network camera, network speed dome, and switch, you can set the quantity of each added device type. By default, the device quantity is 1 after adding to the diagram.
Note: The maximum quantity of one device is 16.

Steps:

1. Click [pointer icon] on the menu bar to switch to the pointer tool.
2. Click to select the device to set the quantity.
3. Click [xn] button to pop up the device quantity dialog box.
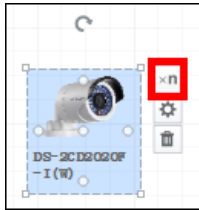
4. Select the device quantity according to the actual needs.

5. Click **OK** to save the settings.
   The quantity number will be displayed on the device shape.

3.7 Advanced Configuration

For network devices, including network camera, network speed dome, NVR, and switch, you can set the advanced parameters including IP address, subnet mask, video parameter template, recording settings, disk calculation, etc.

Note: Before setting the advanced configuration, you are required to connect the network camera, network speed dome, and NVR to the switch first.

Click [pointer icon] on the menu bar to switch to the pointer tool. Click to select the device to set the advanced parameters.

Click [gear icon] button to pop up the device settings dialog box.
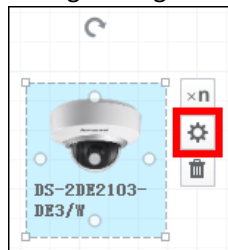
3.7.1 Network Camera and Network Speed Dome Settings

For network camera and network speed dome, you can set the IP address, subnet mask, video parameter templates, etc.

Setting Single Network Camera or Network Speed Dome

If the device quantity is 1, the device settings interface shows as follows:

Network Camera Settings						✕

ID	Device Name	IP Address	Subnet Mask	Gateway	DNS Address	Remark
001	DS-2CD2010F-I(W)					

■	ID	Template Name	Encoding	Video Standard	Frame(fps)	Resolution	Bitrate Type	Bitrate(Kbps)	Bandwidth(Mbps)
☑	001	Template_1	H.264 ▼	PAL ▼	25 ▼	1280×960 ▼	VBR ▼	2048	2.9
☐	002	Template_2	H.264 ▼	PAL ▼	25 ▼	1280×960 ▼	VBR ▼	2048	2.9
☐	003	Template_3	H.264 ▼	PAL ▼	25 ▼	1280×960 ▼	VBR ▼	2048	2.9
☐	004	Template_4	H.264 ▼	PAL ▼	25 ▼	1280×960 ▼	VBR ▼	2048	2.9
☐	005	Template_5	H.264 ▼	PAL ▼	25 ▼	1280×960 ▼	VBR ▼	2048	2.9

Steps:

1. Set the network parameters including IP address, subnet mask, gateway, DNS address, and you can input the remark information if needed.
   Note: You can also set assign the IP addresses in batch for all the network devices. For details, refer to *Chapter 3.8 Assigning IP Address.*
2. Set the video parameter templates. There are five pre-defined templates.
   Check the checkbox(es) to enable the template. Then you can edit the template name as desired and edit the parameters in the template, including encoding format, video standard, frame rate, resolution, and bitrate type.
3. After setting the video parameters, the recommended bitrate and bandwidth will be calculated automatically.
   Note: The enabled templates can be selected when configuring the NVR channels. For details, refer to *Chapter 3.7.2 NVR Settings*.

Setting Multiple Network Cameras or Network Speed Domes

If the device quantity is larger than 1, the device settings interface shows as follows:

Network Camera Settings						✕
ID	Device Name	IP Address	Subnet Mask	Gateway	DNS Address	Remark
+ 001	DS-2CD2012-I					
+ 002	DS-2CD2012-I _2					
+ 003	DS-2CD2012-I _3					
+ 004	DS-2CD2012-I _4					

Steps:

1. For each device, set the network parameters including IP address, subnet mask, gateway, DNS address, and you can input the remark information if needed.
   Note: You can also set assign the IP addresses in batch for all the network devices. For details, refer to *Chapter 3.8 Assigning IP Address.*
2. Click the serial No. in ID field to expand the video parameter template panel.

Network Camera Settings										✕
ID	Device Name		IP Address		Subnet Mask		Gateway	DNS Address	Remark	
+ 001	DS-2CD2012-I									

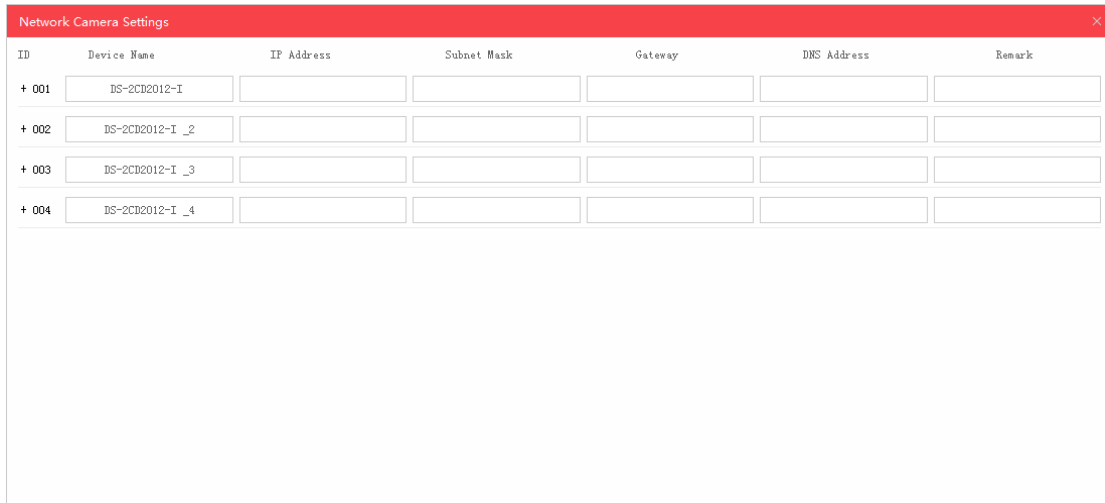| ☐	ID	Template Name	Encoding	Video Standard	Frame(fps)	Resolution	Bitrate Type	Bitrate(Kbps)	Bandwidth(Mbps)
☑	001	Template_1	H.264 ▼	PAL ▼	25 ▼	1280×960 ▼	VBR ▼	2048	2.9
☐	002	Template_2	H.264 ▼	PAL ▼	25 ▼	1280×960 ▼	VBR ▼	2048	2.9
☐	003	Template_3	H.264 ▼	PAL ▼	25 ▼	1280×960 ▼	VBR ▼	2048	2.9
☐	004	Template_4	H.264 ▼	PAL ▼	25 ▼	1280×960 ▼	VBR ▼	2048	2.9
☐	005	Template_5	H.264 ▼	PAL ▼	25 ▼	1280×960 ▼	VBR ▼	2048	2.9

+ 002	DS-2CD2012-I _2									
+ 003	DS-2CD2012-I _3									
+ 004	DS-2CD2012-I _4									

3. Set the video parameter templates. There are five pre-defined templates.
   Check the checkbox(es) to enable the template. Then you can edit the template name as desired and edit the parameters in the template, including encoding format, video standard, frame rate, resolution, and bitrate type.
4. After setting the video parameters, the recommended bitrate and bandwidth will be calculated automatically.
   Note: The enabled templates can be selected when configuring the NVR channels. For details, refer to *Chapter 3.7.2 NVR Settings*.
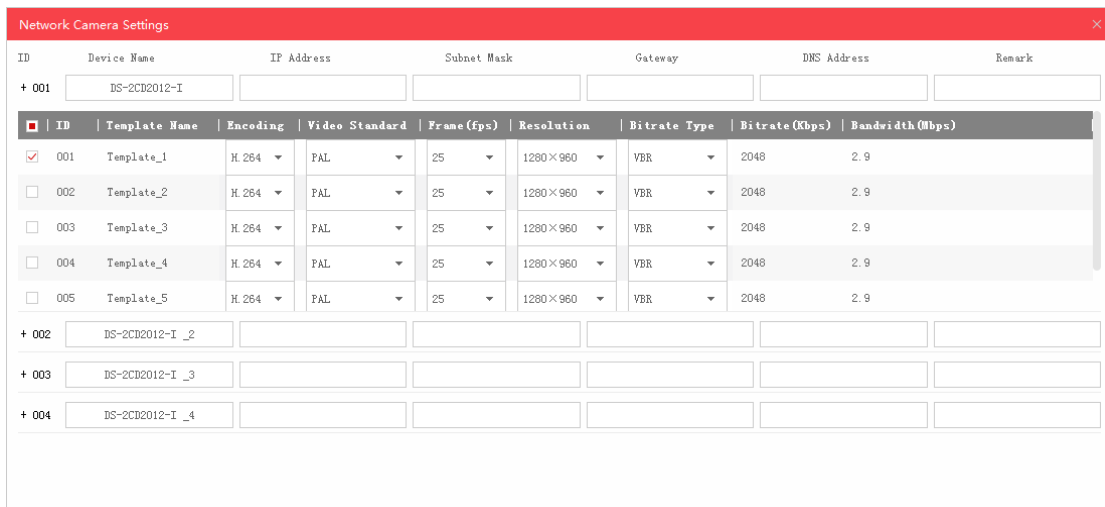
3.7.2 NVR Settings

For NVR, you can set the channel settings, recording settings, and view the required disk space.

Note: Please add device (network camera or network speed dome) as channel of NVR first and then you can set the recording settings and view the required disk space.
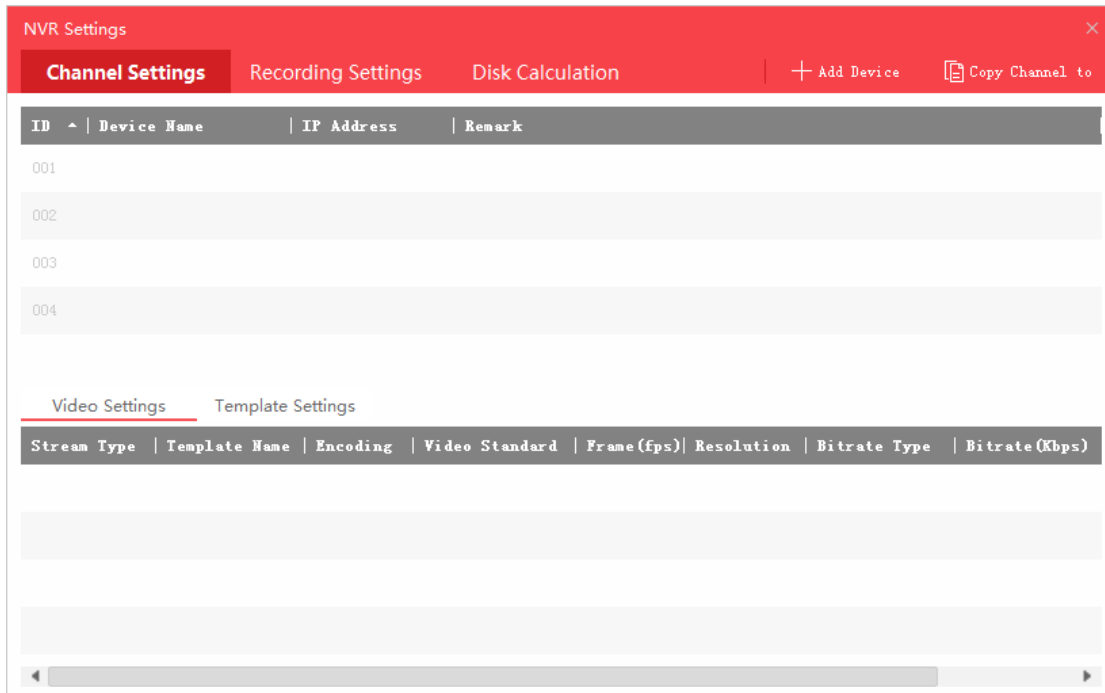
Channel Settings

You can set the video parameters of the NVR channels.

Steps:

1. Click **Channel Settings** tab.
2. Click **Add Device** to pop up the following dialog box to add the network camera or network speed dome as channel of NVR.

1) The network camera or network speed dome which has been connected with the NVR will be displayed in the **Connectable Device** list.
2) Click the device in the Connectable Device list and click ![arrow] to add it to the **NVR Channel**

list. You can click the added NVR channel and click [←] to remove it.

Note: The device, which has been added to NVR channel (marked as [icon]), cannot be added again.

3) Click **OK** to save the adding.

3. The added devices will be displayed. You can view the IP address and remark information.

Also, you can click these fields to input or edit the IP address and remark information if needed.

4. Click the added device, and you can set its video parameter and set the template.

1) Click **Video Settings** tab to set the video parameters for recording, live view, and playback.

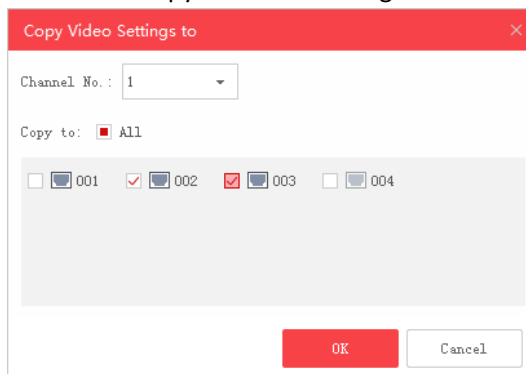Select the template from the dropdown list. The parameters in the template will displayed.

Video Settings	Template Settings						
Stream Type	Template Name	Encoding	Video Standard	Frame(fps)	Resolution	Bitrate Type	Bitrate(Kbps)
Recording	Template_1 ▼	H.264	PAL	25	1280×960	VBR	2048
Live View	Template_1 ▼	H.264	PAL	25	1280×960	VBR	2048
Playback	Template_1 ▼	H.264	PAL	25	1280×960	VBR	2048

2) Click **Template Settings** tab to set the video parameter templates.

Note: For setting the template, please refer to *3.7.1 Network Camera and Network Speed Dome Settings.*

		Video Settings	Template Settings											
■	ID	Template Name	Encoding	Video Standard	Frame(fps)	Resolution	Bitrate Type	Bitrate(Kbps)
✓	001	Template_1	H.264 ▼	PAL ▼	25 ▼	1280×960 ▼	VBR ▼	2048
☐	002	Template_2	H.264 ▼	PAL ▼	25 ▼	1280×960 ▼	VBR ▼	2048
☐	003	Template_3	H.264 ▼	PAL ▼	25 ▼	1280×960 ▼	VBR ▼	2048
☐	004	Template_4	H.264 ▼	PAL ▼	25 ▼	1280×960 ▼	VBR ▼	2048

5. You can click **Copy Channel to** to copy the video settings to other channels of NVR.

Copy Video Settings to   ×

Channel No.: 1 ▼

Copy to: ■ All

☐ 001   ✓ 002   ✓ 003   ☐ 004

OK   Cancel

1) Select the channel to be copied from the dropdown list as the source channel.
2) Select the target channel to copy the video settings of source channel to.
3) Click **OK** to copy the settings.

Recording Settings

You can set the recording schedule for the channels of NVR, including weeks and probability for recording, for calculating the disk storage.

Steps:

1. Click **Recording Settings** tab.
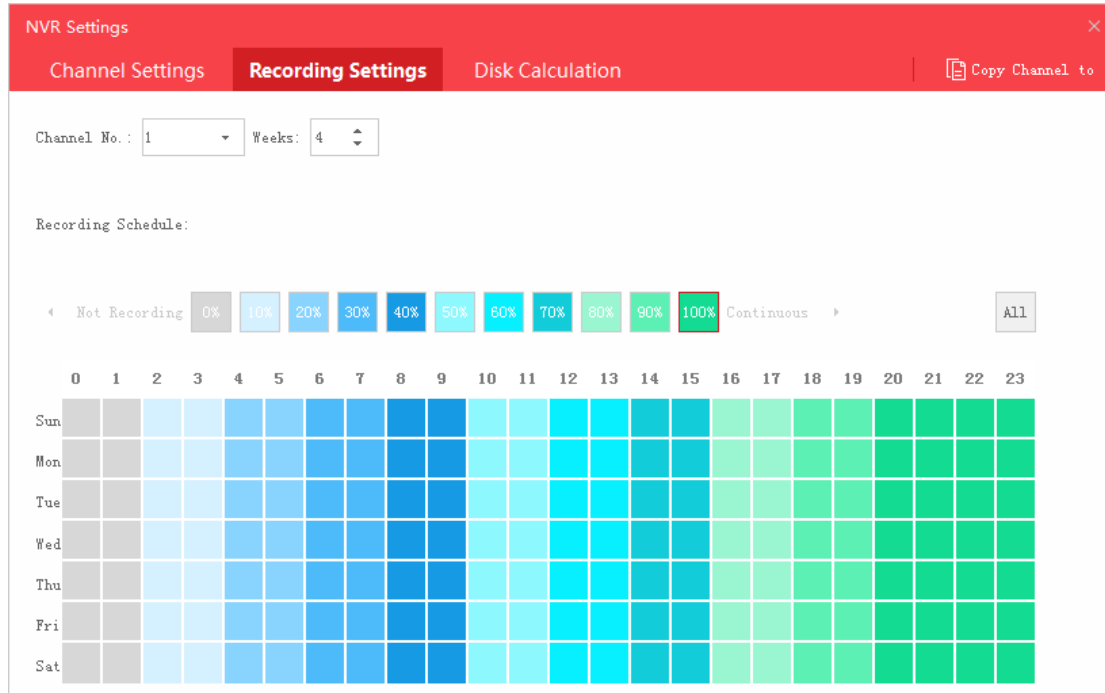
2. Select the channel from the dropdown list to set the recording schedule.
3. Set the week number for recording.
4. Set the recording schedule.
   1) The icons of probability for recording are displayed in different colors.

   For example: 40% means in that period of time, the probability for the channel to start recording is 40%, which can be understood that 40% of that period is in recording.
   2) Click the icon to select the specific probability and then click on the time table to draw the schedule.
   3) (Optional) You can click the probability icon and click **All** to set all the time periods of the whole week as that probability.
5. (Optional) You can click **Copy Channel to** to copy the recording settings to other channels of NVR.
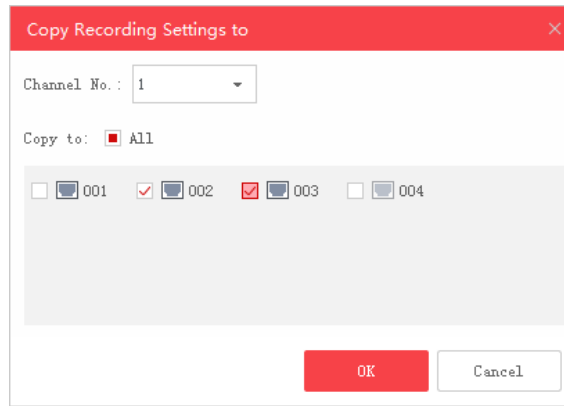
1) Select the channel to be copied from the dropdown list as the source channel.
2) Select the target channel to copy the video settings of source channel to.
3) Click **OK** to copy the settings.

Disk Calculation

After setting the channel video parameters and recording schedule, you can view the recommend storage space of each channel.

Steps:

1. Click **Disk Calculation** tab.
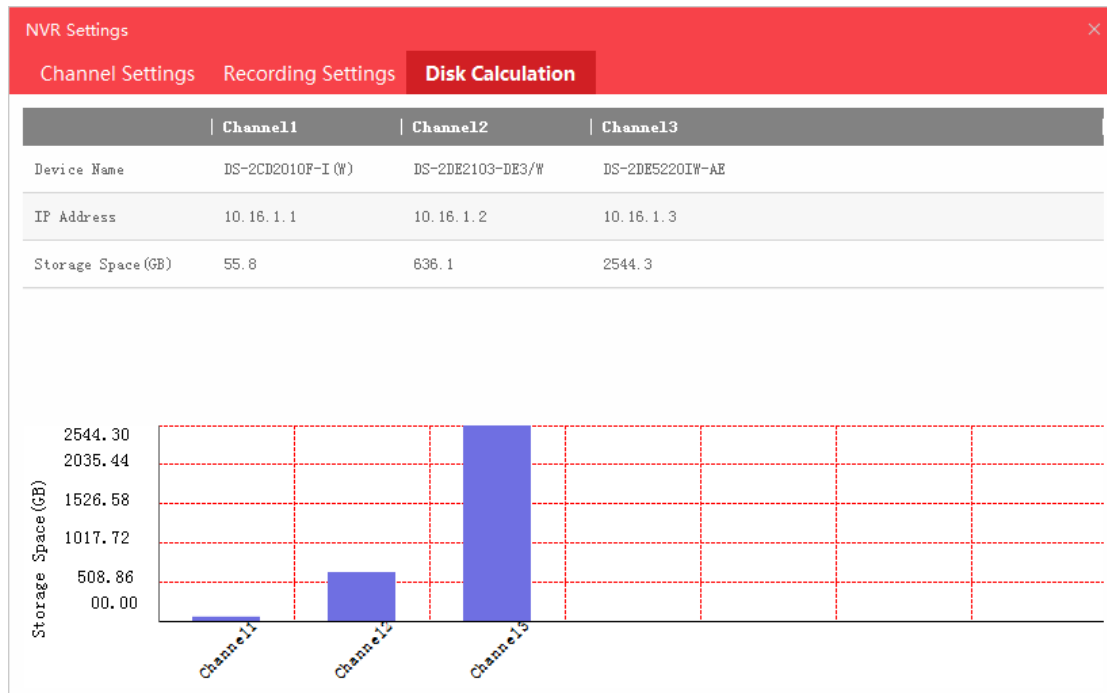
2. You can view the device name, IP address, and recommended storage space of each channel of NVR.
3. The recommended storage space of each channel is also displayed in histogram.

3.7.3 Switch Settings

After adding devices (network camera, network speed dome, and NVR) to the diagram, you can

view the devices connection status and network information.

ID ▲	Status	Connector Type	Device Name	IP Address
001	Connected	100Mbps	DS-7104NI-SN	
002	Connected	100Mbps	DS-2DE2103-DE3/W	10.16.1.2
003	Connected	100Mbps	DS-2DE5220IW-AE	10.16.1.3
004	Not Connected			

You can view the connection **Status** of the added devices (network camera, network speed dome, and NVR).

- **Connected** means the device is connected to the switch, and you can view the connector type, device name, and IP address.
- **Not Connected** means the device is not connected with the switch.

Notes:

- For setting the IP address of network camera and network speed dome, please refer to *Chapter 3.7.1 Network Camera and Network Speed Dome Settings*.
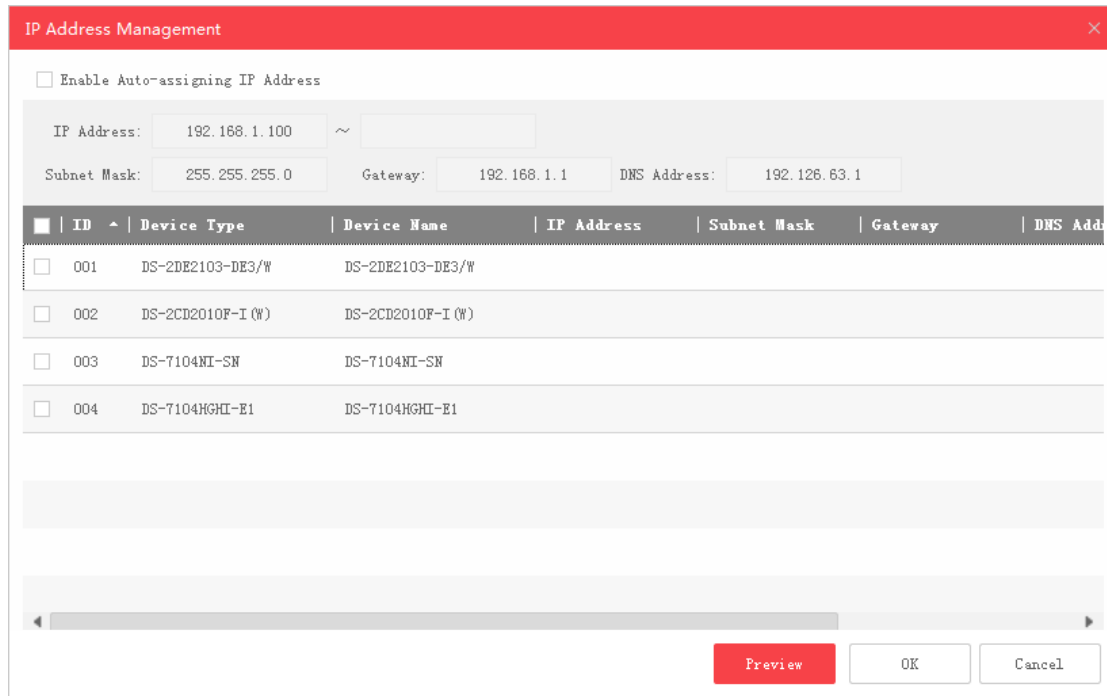- For setting the IP address of NVR, please refer to *Chapter 3.8 Assigning IP Address.*

3.8 Assigning IP Address

After adding the devices to the diagram area, you can assign IP address to them.

Note: You can assign IP address to network camera, network speed dome, DVR, and NVR.

Steps:

1. Click [ ] on the menu bar to enter the IP Address Management interface.

2. All the added network devices (including network camera, network speed dome, DVR, and NVR) will be displayed in the list. Double click the field in the table to set the IP address, subnet mask, gateway, and DNS address, and input the remark information manually.
3. (Optional) You can also assign continuous IP addresses to multiple devices in batch.
    1) Check the **Enable Auto-assigning IP Address** checkbox to enable this function.
    2) In the device list, check to select the devices for assigning the IP address.
    3) In the following fields, set the start IP address. The devices' IP addresses will be set consecutively from the start IP address.
    4) Input the subnet mask, gateway, and DNS address for the selected devices.

    5) You can click **Preview** to preview the IP address assigning result.
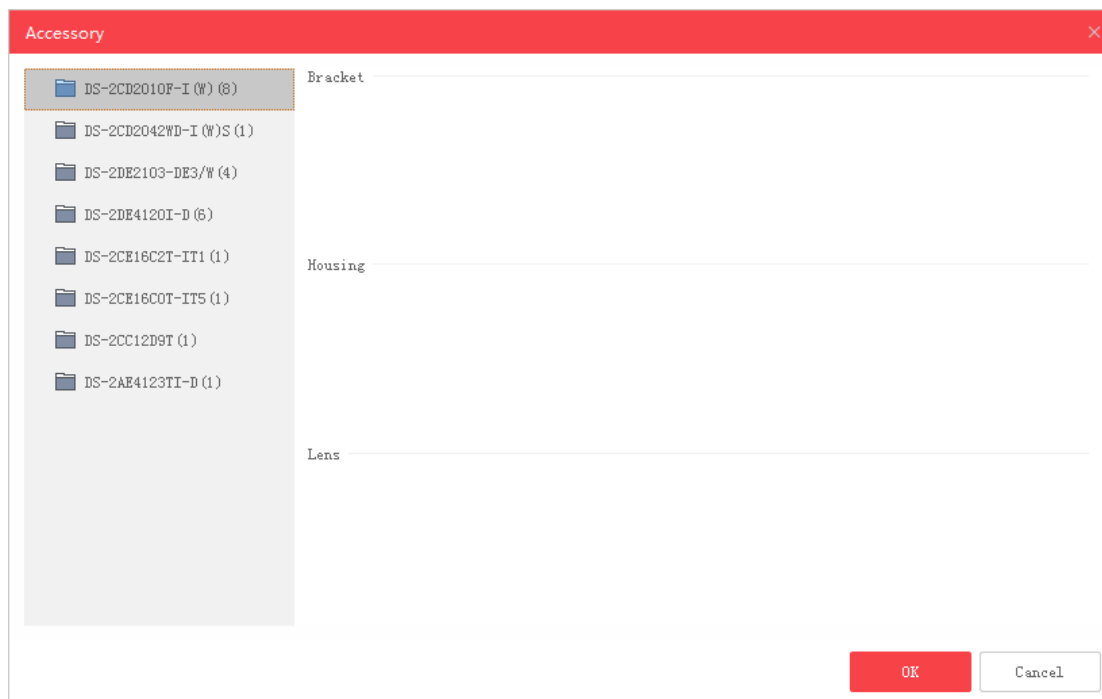

    6) Click **OK** to save the settings.

3.9 Setting Accessory

You can set the accessory (including bracket, housing, and lens) for the added cameras, including network camera, network speed dome, analog camera, and analog speed dome.
Steps:

1. Click on the menu bar to enter the Accessory interface.

All the added cameras will be displayed on the left, with camera quantity in the round brackets.

2. Double click the device name to expand the cameras .

3. You can click the camera and its supported bracket, housing, and lens will be displayed. Click to select the accessories and lens for the camera.

You can also click the device name and select the accessories and lens for all the added cameras of that model.
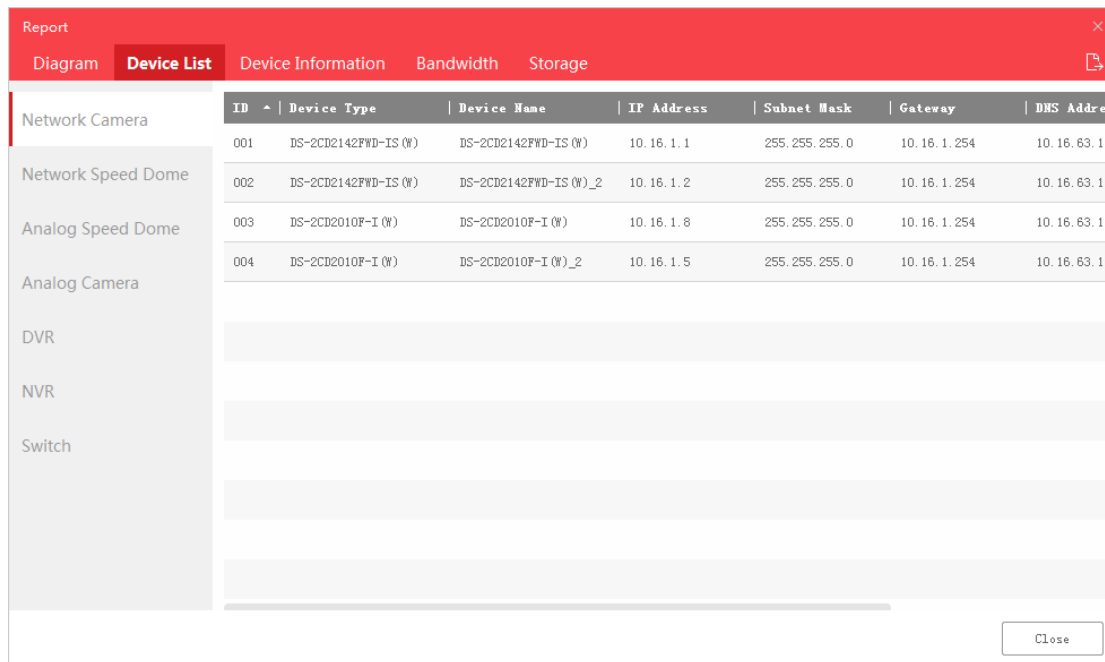
4. Click **OK** to save the settings.

Chapter 4 Report

Purpose:

You can generate a report in order to make it easy to understand the whole solution and configuration of your diagram. You can view the recommend bandwidth and storage space according to your solution. You can also export the report to local PC.

Steps:

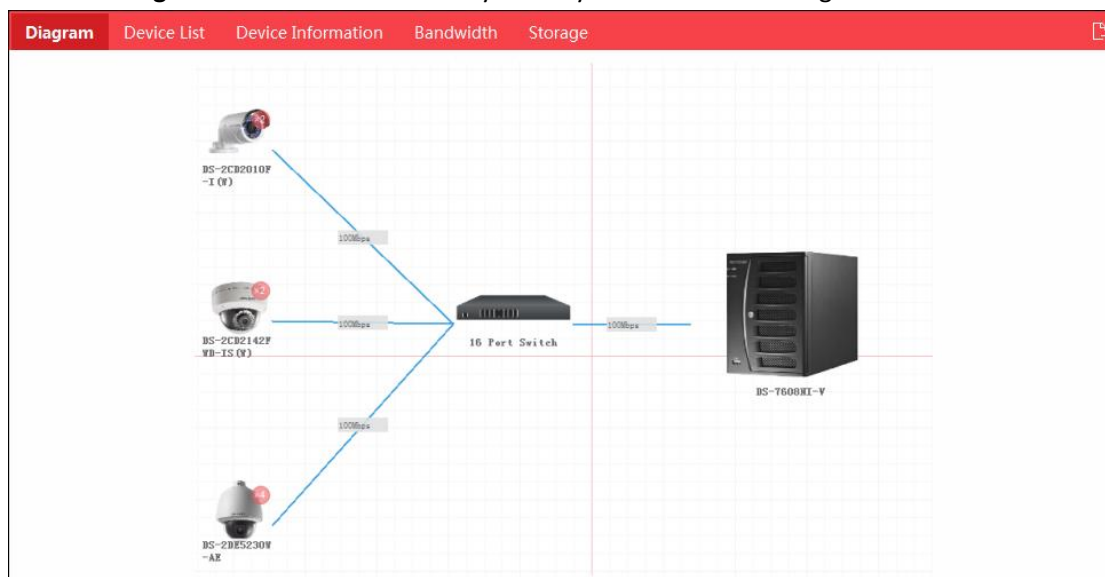1. Click ![clipboard icon] on the menu bar to open the Report window.

The Report contains five parts: Diagram, Device List, Device Information, Bandwidth, and Storage.

2. Click **Diagram** tab to view the entire system layout of the drawn diagram.

You can click [icon] on the upper-right corner to export the diagram picture to the local PC in *.bmp format.

3. Click **Device List** tab to view the added device information in different categories.

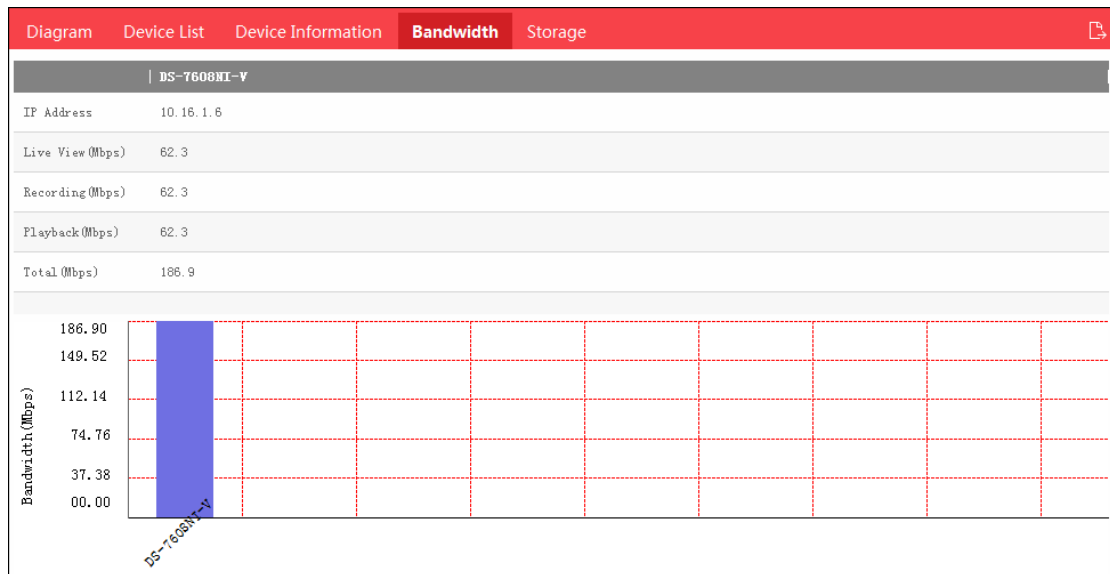| Diagram | **Device List** | Device Information | Bandwidth | Storage | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Network Camera** | ID ▲ | Device Type | Device Name | IP Address | Subnet Mask | Gateway | DNS Address | Remark |
| | 001 | DS-2CD2142FWD-IS(W) | DS-2CD2142FWD-IS(W) | 10.16.1.1 | 255.255.255.0 | 10.16.1.254 | 10.16.63.1 | |
| Network Speed Dome | 002 | DS-2CD2142FWD-IS(W) | DS-2CD2142FWD-IS(W)_2 | 10.16.1.2 | 255.255.255.0 | 10.16.1.254 | 10.16.63.1 | |
| Analog Speed Dome | 003 | DS-2CD2010F-I(W) | DS-2CD2010F-I(W) | 10.16.1.8 | 255.255.255.0 | 10.16.1.254 | 10.16.63.1 | |
| Analog Camera | 004 | DS-2CD2010F-I(W) | DS-2CD2010F-I(W)_2 | 10.16.1.5 | 255.255.255.0 | 10.16.1.254 | 10.16.63.1 | |
| DVR | | | | | | | | |
| NVR | | | | | | | | |
| Switch | | | | | | | | |

You can click [icon] on the upper-right corner to export the device list in Word or Excel file.

4. Click **Device Information** tab to view the added device properties.

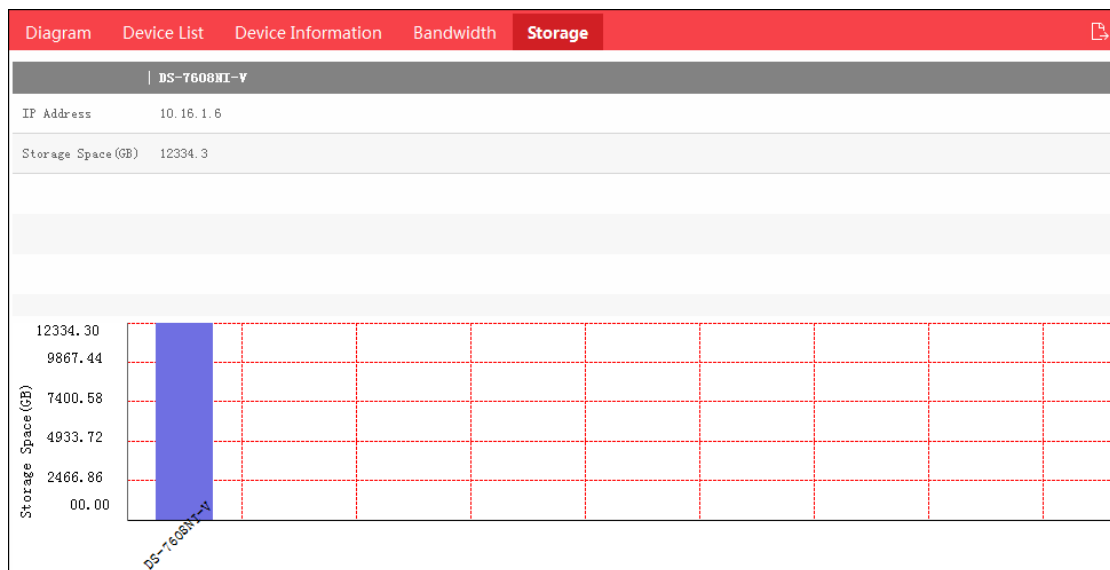| Diagram	Device List	**Device Information**	Bandwidth	Storage		Details	
ID ▲	Picture	Main Type	Device Type	Number		**Device Information**	
001	[icon]	Network Camera	DS-2CD2010F-I(W)	2		Main Type	Network Camera
002	[icon]	Network Camera	DS-2CD2142FWD-IS(W)	2		Device Name	DS-2CD2010F-I(W)
003	[icon]	Network Speed Dome	DS-2DE5230W-AE	4		**Area**	
004	[icon]	NVR	DS-7608NI-V	1		Region	Australia;Indi...
005	[icon]	Switch	16 Port Switch	1		**Basic Parameters**	
						Camera Type	Bullet
						Max.Resolution	1.3MP
						Day & Night	ICR
						WDR	DWDR
						Audio Support	No
						Protection Level	IP67
						Darkfighter Series	No

You can click [icon] on the upper-right corner to export the device properties information in Word or Excel file.

5. Click **Bandwidth** tab to view the recommended bandwidth for the added NVR.

| Diagram | Device List | Device Information | **Bandwidth** | Storage | |

| DS-7608NI-V

IP Address	10.16.1.6
Live View(Mbps)	62.3
Recording(Mbps)	62.3
Playback(Mbps)	62.3
Total(Mbps)	186.9

You can click [icon] on the upper-right corner to export the recommended bandwidth in Word or Excel file.

6. Click **Storage** tab to view the recommended storage space for the added NVR.

| Diagram | Device List | Device Information | Bandwidth | **Storage** | |

| DS-7608NI-V

| IP Address | 10.16.1.6 |
| Storage Space(GB) | 12334.3 |

You can click [icon] on the upper-right corner to export the recommended storage space in Word or Excel file.

First Choice for Security Professionals