

Network Camera

Application Guide

1.8

Before operating the unit, please read this manual thoroughly and retain it for future reference.

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Overview

This instruction manual is for application software, such as the SNC toolbox.

Tip

SNC toolbox stands for Sony Network Camera toolbox.

Note

Some functions described in this manual may not be displayed depending on the available functions of the connected device.

How to Use This Manual

This manual is intended to be viewed as a PDF document on the computer display.

The following is information you should know to make maximum use of the manual. Be sure to read it before you start operations.

Jump to the related page

If you view the manual on the computer display, you can jump to a related page by clicking its page number. In this way, the detailed information can be easily searched.

Software screenshots

The software screenshots shown in this manual are samples for description. Their details may differ from the actual situation.

In addition, the illustrations and menu screenshots for Network Camera SNC-VM772R are applied as examples.

When you print out this manual

Depending on the system environment, the illustrations and screenshots may not be printed finely as those viewed in the PDF document.

Using the SNC toolbox

Explains the functions in SNC toolbox.

Notes

- SNC toolbox may not operate correctly if you use a personal firewall or antivirus software in your computer. In this case, disable the software.
- If you are using Windows 7, Windows 8.1 or Windows 10, disable Windows Firewall. Otherwise SNC toolbox will not operate correctly. To set Windows Firewall see: “Configuring Windows Firewall” in “When using Windows 7” on page 26 or “Configuring Windows Firewall” in “When using Windows 8.1 or Windows 10” on page 28.
- If you are using Windows 10, set Tablet mode to off.
- The SSL function and TLS function are described simply as “SSL.”
- The model on sale in China does not support the SSL function.
- To perform SSL communication with a camera, configure the settings of SNC toolbox.
To configure the settings when registering in My device, see “Registering in My device” on page 9.
To configure the settings for each device, see “Modify Device Entry” in “How to use SNC toolbox” on page 4.
To configure the settings for multiple devices at the same time, see “Network tab” in “Setting SNC toolbox options” on page 12.
- When the whole camera image cannot be viewed, set the display setting (scaling level) of your computer display to 100%.
- If you are using a display with high resolution, the scaling level may automatically be changed.

Installing SNC toolbox

- 1 Download the installer of SNC toolbox from the appropriate folder of the following website.
<http://www.sony.net/ipela/snc>
- 2 Extract the downloaded installer ZIP file.
- 3 Run the “SncToolbox_Setup.exe” file.
- 4 Install the SNC toolbox following the wizard displayed.
If the Software License Agreement is displayed, read it carefully and accept the agreement to continue with the installation.

Tip

You should be logged in as administrator to install the software.

- 5 Click **Finish**. The installation is completed.

Starting SNC toolbox

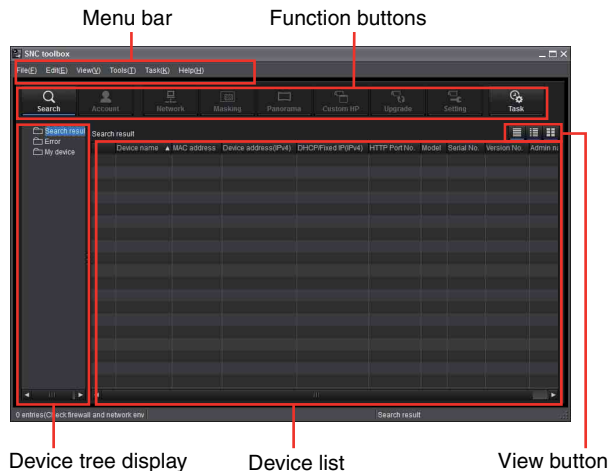
If you are using Windows 7, select **All Programs** from the Windows Start menu, then select **SNC toolbox** and **SNC toolbox** in sequence.

If you are using Windows 8 or Windows 8.1, select **SNC toolbox** from the Windows Start menu.

SNC toolbox starts.

The main screen appears. SNC toolbox detects device(s) connected to the local network and displays the list.

How to use SNC toolbox



Menu bar

All functions can be selected from here.

File (F) menu

Import: Reads the Device list file (CSV format).

Export: Outputs the Device list in a CSV format file.

Close: Exits SNC toolbox.

Edit (E) menu

Cut: Cuts off a device or folder.

Copy: Copies a device or folder.

Paste: Pastes a device or folder.

Select All: Selects all devices in the Device list.

Add Folder: Creates a folder.

Add Device Entry: Manually registers a device.

Modify Device Entry: Edits the device information.

Remove: Removes a device from a folder.

Delete: Deletes a device or folder.

View (V) menu

Status Bar: Switches show/hide of status at the bottom of the screen.

Normal: Displays detailed information on a device.

Snapshot small: Displays detailed information on a device with a small thumbnail.

Snapshot large: Lists devices with large thumbnails.

Column Setting: Displays the setting screen for the items to display on the list.

Select Display Series: Displays the screen to select the series to be displayed on the list.

Tools (T) menu

Search: Searches again for devices.

Enabling the **Search external network device(s)** function allows you to search in a wider range.

To configure the function, click **Option** under **Tools**, then select **Search Setting** in the **Network** tab.

Device Account: Displays the management screen for user names and passwords related to the device.

Network Setting: Displays the screen for modifying the address settings for the selected device.

Device Setting: Displays the settings screen for the selected device.

Device batch setting: Displays the batch setting screen for the selected devices.

Privacy Masking: Displays the Privacy Masking screen.

Panorama Creator: Displays the Panorama Creator screen.

Custom Homepage: Displays the Custom Homepage screen.

Voice alert file:

Create: Displays the Create Voice alert file screen.

Upload: Displays the Uploading Voice alert file screen.

Firmware Upgrade: Displays the Firmware Upgrade screen.

CGI Sending: Displays the CGI Sending screen.

Initialize Device:

Reboot: Restarts the device.

Factory default: Initializes the device to factory default.

Backup setting data: Backs up setting data on a computer.

Restore setting: Restore the backup setting data to the device.

Device Homepage: Connects to the device.

Device Log:

System Log: Obtains system log for the device.

Access Log: Obtains access log for the device.

Device Log download: Downloads logs for the device.

Tool Log: Obtains SNC toolbox log.

Option: Displays the screen for modifying SNC toolbox settings.

Task (K) menu

Task List: Displays the Task list screen.

Add Task: Displays the Task Wizard screen.

Modify Task: Displays the Task editing screen.

Delete Task: Deletes task.

Help (H) menu

Tips: Displays tips for the SNC toolbox.

Version: Displays SNC toolbox version information.

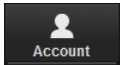
Function buttons

Function buttons are used for updating lists and displaying dialog.



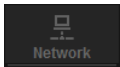
Search

Updates the Device list in the search result.



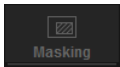
Account

Sets the administrator for each device.



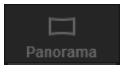
Network

Displays the **Network Setting** dialog.



Masking

Displays the **Privacy Masking** dialog.



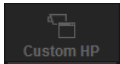
Panorama

Displays the **Panorama Creator** dialog.



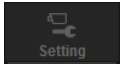
Upgrade

Updates the device firmware.



Custom HP

Displays the **Custom Homepage** dialog.



Setting

Displays the settings screen for the device.



Task

Displays the **Task List** dialog.

Device tree view

This function allows you to customize folders. The registration details of My device can be displayed in tree format.

Search result folder

Selecting this folder displays devices in the network segment that had been searched for when the system is launched or with the **Search** function in the device list. The search result can be displayed for maximum 1,024 cameras.

Error folder

When this folder is selected, devices registered in My device folder that can not be connected are displayed in the Device list.

Also, if a registered device is not found on the network, it will also be registered in this folder.

My device folder

When this folder is selected, devices in the Search result folder or registered manually are displayed in the Device list.

Device list

Devices registered in the folder selected at Device tree view are displayed in a list.

Device name

Displays individual device names.

Status (Only for Error folder and My device folder)

You can check the current connection status.

MAC address

You can check the MAC address of the device.

Device address

You can check the IP address of the device.

Port No., HTTP Port No.

You can check the port number of the device.

DHCP/Fixed IP

Displays whether the IP address of the selected device is DHCP or fixed IP.

Client certificate

Displays the name of the client certificate used for SSL function.

Model

Displays the model name.

Serial No.

Displays the serial number.

Version No.

Displays the version of firmware.

Admin name

Displays the administrator user name.

IP Address of NIC (Search result folder only)

Displays the IP address of the NIC (Network Interface Card) detected.

Hours meter (Only for My device folder)

Displays the total operating time.

Tips

- A camera with which SSL communication has been performed will show  on the left side of its IP address.
- The model on sale in China does not support the SSL function.

View button

You can change the display format of the Device list (page 10).

Searching devices

Clicking **Search** enables you to detect network devices connected to the network. In the initial status, it detects devices on the same network segment. However after configuring search settings, it is able to search devices even outside the network segments.

For details on Search settings, see “Setting SNC toolbox options – Network tab – Search Setting” (page 12). SNC toolbox searches devices on a regular basis. You can determine the status of the search function from the **Search** button.

Searching



Searches devices on the network on a regular basis and updates the device list automatically. Click to stop searching.

Stop Searching



Searching stopped. Click to resume searching.

To expand search range

Configure the search settings.

- 1 Click **Option** under **Tools**.
- 2 Click the **Network** tab.
- 3 Place a check on **Search external network device(s)** in **Search Setting**.

To search in a wider range, set the greater value in TTL.

Tip

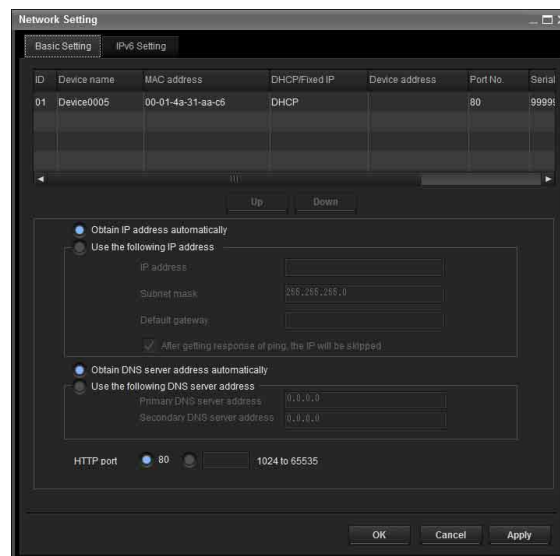
If the device is not detected even with the correct search settings, see “Note” in “Setting SNC toolbox options – Network tab – Search Setting” (page 12).

Assigning an IP address

To connect the device via network, you need to assign a new IP address to the device when you install it for the first time.

Clicking **Network** after selecting a device to configure network settings with from the device list, the **Network setting** dialog will be displayed. This dialog is configured with two types of tabs, **Basic Setting** and **IPv6 Setting**.

Basic Setting tab (when a single device is selected from the device list)



You can configure the network information (IPv4) of the single device selected in the device list.

Device list: Displays devices for IPv4. After selecting and setting a device to configure, the device list will be updated automatically.

Obtain IP address automatically: Sets DHCP mode to on.

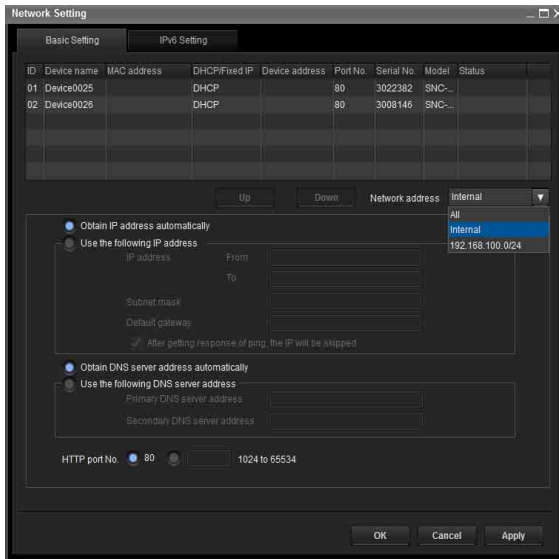
Use the following IP address: Sets the DHCP mode off. When this is set, specify the IP address, subnet mask, default gateway to specify the fixed address. You can also add a check to “After getting response of ping, the IP will be skipped” to determine whether the specified IP address is already in use or not.

Obtain DNS server address automatically: Sets DNS mode to on.

Use the following DNS server address: Sets DNS mode to off. When this is set, specify the preference DNS server address and alternative DNS server address.

HTTP port No.: Normally, 80 should be selected. When setting a value other than 80, select the textbox and enter a port number.

Basic Setting tab (when multiple devices are selected from the device list)

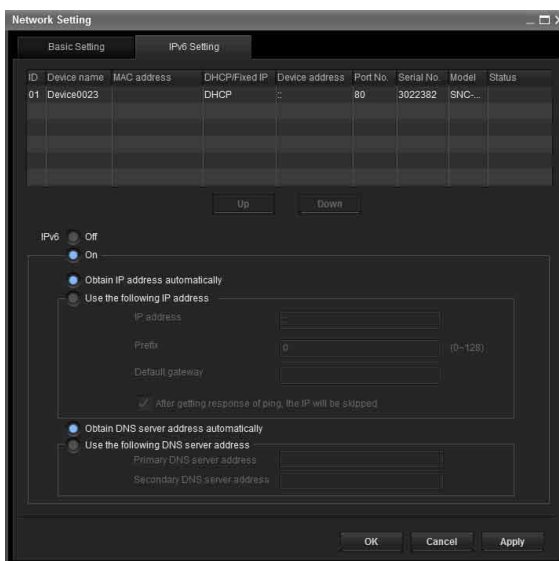


You can configure network information (IPv4) for multiple devices selected in the device list. Based on the selected multiple devices, the following points are different from the **Basic Setting** tab when a single device is selected.

Use the following IP address: Sets the DHCP mode off, then specifying the start and end IP addresses enables you to configure sequential IP addresses.

Network address: Displayed when multiple devices are selected from the device list and multiple network addresses exist. Selecting the network address where the device you want to configure exists enables you to configure collectively.

IPv6 Setting tab (when a single device is selected from the device list)



You can configure the network information (IPv6) of a single device selected in the device list.

Device list: Displays devices for IPv6. After selecting and setting a device to configure, the device list will be updated automatically.

IPv6: Enables you to switch IPv6 modes.

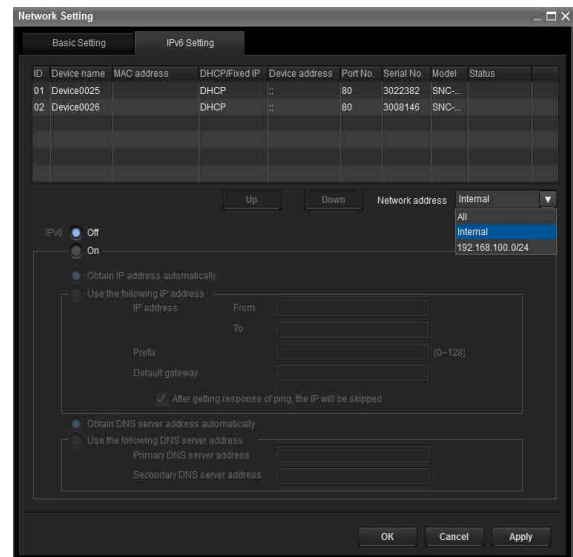
Obtain IP address automatically: Sets DHCP mode to on.

Use the following IP address: Sets DHCP mode to off. When this is set, specify an IP address, prefix, default gateway to specify the fixed address. You can also add a check to "After getting response of ping, the IP will be skipped" to determine whether the specified IP address is already in use or not.

Obtain DNS server address automatically: Sets DNS mode to on.

Use the following DNS server address: Sets DNS mode to off. When this is set, specify a preference DNS server address and alternative DNS server address.

IPv6 Setting tab (when multiple devices are selected from a device list)



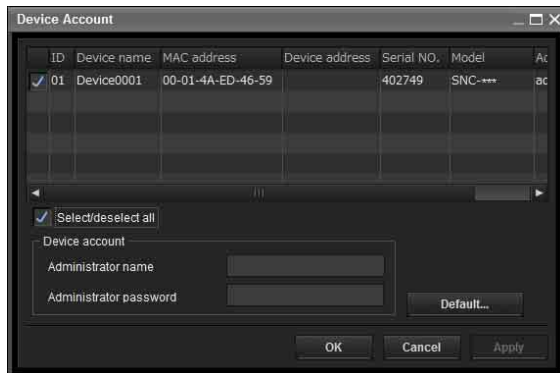
You can configure network information (IPv6) for multiple devices selected from the Device list. Based on the multiple devices selected, the following points are different from the **Basic Setting** tab when a single device is selected.

Use the following IP address: Sets the DHCP mode off, then specifying the start and end IP addresses enables you to configure sequential IP addresses.

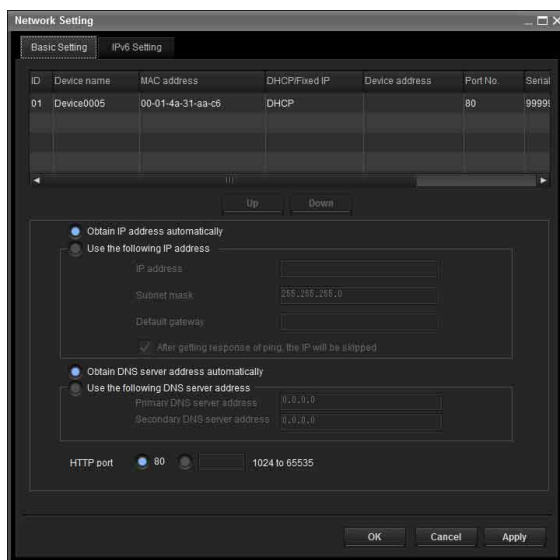
Network address: Displayed when multiple devices are selected from a device list and when multiple network addresses exist. Selecting the network address where the device you want to configure exists enables you to configure collectively.

Using the Network settings

- 1 Select a device you want to assign an IP address to from the list and click **Network**.
The account settings screen is displayed.



- 2 Register the name and password of the administrator and click **OK**.
The factory settings for both items are “admin”.
The **Network Setting** screen is displayed.



- ### 3 Set the IP address.

To obtain the IP address automatically from a DHCP server:

Select **Obtain IP address automatically**.

The IP address, Subnet mask and Default gateway are assigned automatically.

Note

When you select **Obtain IP address automatically**, make sure that the DHCP server is operating on the network.

To specify the IP address manually:

Select **Use the following IP address**, and type the IP address, Subnet mask and Default gateway in the relevant boxes.

- 4** Set the DNS server address.

To obtain the DNS server addresses automatically:

Select **Obtain DNS server address automatically**.

To specify the DNS server addresses manually:

Select **Use the following DNS server address**, and type the Primary DNS server address and Secondary DNS server address in the relevant boxes.

- 5** Set the HTTP port No.
Normally, select **80** for the HTTP port No. To use another port number, type a port number between 1024 and 65535 in the text box.

Note

When using a port number other than **80**, check with the network administrator first.

- 6 Confirm that all items are correctly set, then click **OK**.
If **Setting OK** is displayed, the IP address is correctly assigned.
- 7 When setting is finished, to access the device directly, double-click the device name in the list.

[illegible]

The viewer screen of the network device is displayed on the Web browser.

Note

If the IP address is not set correctly, the viewer does not appear after step 7. There is a possibility that the device cannot be searched for. In that case, try to set the IP address again.

Registering in My device

The device tree has three folders by default: **Search result**, **Error** and **My device**.

The **Search result** folder and **Error** folder are fixed, so you cannot edit the content or rename the folder.

The **My device** folder can be renamed, and you can add, delete and move folders.

Search result folder

Displays devices detected by search.

Error folder

Displays devices that are not connected.

My device folder

You can sort and manage devices using any folder.

Adding a folder

- 1 Select the parent folder to which you want to add a folder.
- 2 Right click the mouse and select **Add Folder** from the displayed menu.
A folder is added. Enter a folder name of your choice.

Registering a device

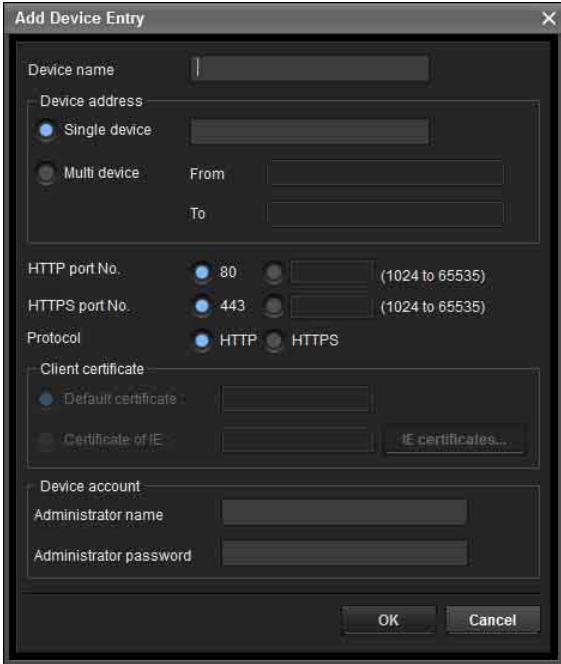
To register a device, follow the procedure below:

- Registering by **Add Device Entry** dialog
- Registering by drag & drop
- Registering by copy & paste

Registering by Add Device Entry dialog

- 1 Select the folder to register the device.
- 2 Right click the mouse and select **Add Device Entry** from the displayed menu.

The **Add Device Entry** dialog appears.



- 3 Enter the following items:
Device name: Enter a device name of your choice.
Device address: Enter the address of the device to register. Normally, select **Single device**. If there is more than one camera in the specified IP address range then select **Multi device**.
HTTP port No.: Normally, 80 should be selected. When setting a value other than 80, select the textbox and enter a port number.
HTTPS port No.: Normally select 443. When setting a value other than 443, select the textbox and enter a port number.
Protocol: Select communication protocol **HTTP** or **HTTPS**.
Client certificate: Set when using the client authentication of the SSL function.
Activates when **HTTPS** is selected.
Default certificate: Select Default client certificate of the Network tab from **Option** in the **Tools** menu.
Certificate of IE: Press the **IE certificates...** button, then select the certificate registered in the Internet Explorer.
Device account: Enter the user name and password of the administrator who will access the device in the **Administrator name** field and **Administrator password** field, respectively.
- 4 Click **OK** to finish registration.

Registering by drag & drop

To add a device, select a device from the Device list in the Search result folder, and drag & drop to the folder to register it in.

Registering by copy & paste

Select a device from the Device list in the Search result folder and right click the mouse. Select **Copy** from the displayed menu (or select **Copy** from the **Edit** menu). Next, select the folder to register in and right click the mouse. Select **Paste** from the displayed menu.

Renaming the device/folder

Select the folder or device to rename and right click the mouse. Select **Rename** from the displayed menu. The device/folder name is highlighted. Enter the new name.

Deleting a device/folder

Select the device/folder to be deleted from the Device list or Device tree and right click the mouse. Select **Delete** from the displayed menu (or select **Delete** from the **Edit** menu).

Moving a device/folder

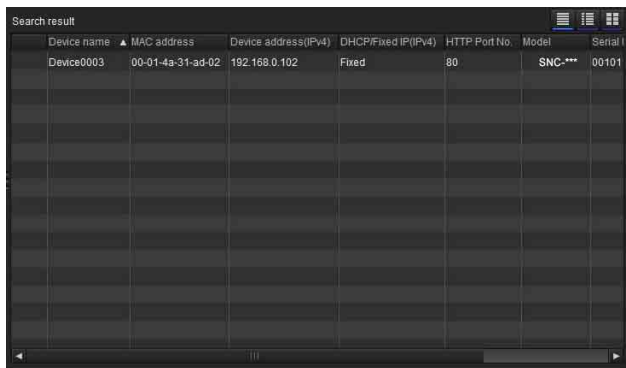
You can move a device/folder by following either of the methods below:

- Select a device/folder from the Device list or Device tree and drag & drop in the folder to move it to, which will move the device/folder.
- Select a device/folder from the Device list or Device tree and right click the mouse. Select **Cut** from the displayed menu (or select **Cut** from the **Edit** menu). Next, select the folder to move to and select **Paste**.

Changing the Device list display method

Details display

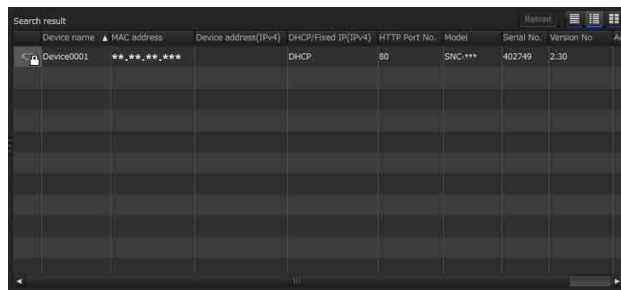
Select **Normal** from the **View** menu or click  to set to the details display.



Device name	MAC address	Device address(IPv4)	DHCP/Fixed IP(IPv4)	HTTP Port No.	Model	Serial No.
Device003	00-01-4a-31-ad-02	192.168.0.102	Fixed	80	SNC-***	00101

Details display with thumbnails

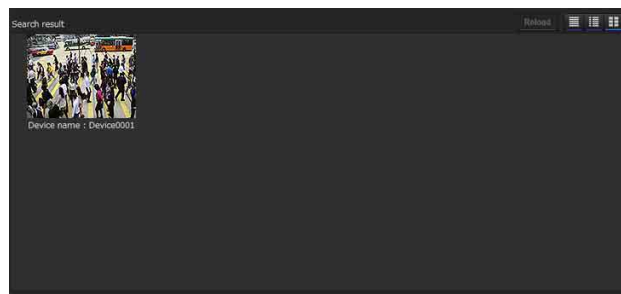
Select **Snapshot(S)** from the **View** menu or click  to set to the details display with thumbnails.



Device name	MAC address	Device address(IPv4)	DHCP/Fixed IP(IPv4)	HTTP Port No.	Model	Serial No.	Version No.
Device001	***.***.***		DHCP	80	SNC-***	402749	2.30

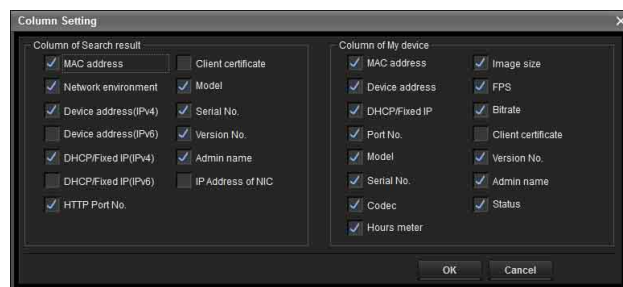
Display with large thumbnails

Select **Snapshot(L)** from the **View** menu or click  to set to display with large thumbnails.



Modifying the items to show on list

Select **Column setting** from the **View** menu to display the “Column Setting” dialog.



Check the items you want to display and remove the checks from items you want to hide.

Click **OK** after making the changes. The new setting is reflected on the list and the display returns to the main screen.

Modifying the series to show on list

Select **Select Display Series** from the **View** menu to display the “Select Display Series” dialog.



Check the series you want to display and remove the checks from series you want to hide. Click **OK** after making the changes. The new setting is reflected on the list and the display returns to the main screen.

Notes

- If the series to be shown are added in the “Select Display Series” dialog while search is stopped, a provisional search is performed.
- **Select Display Series** is reflected in the search result folder only.

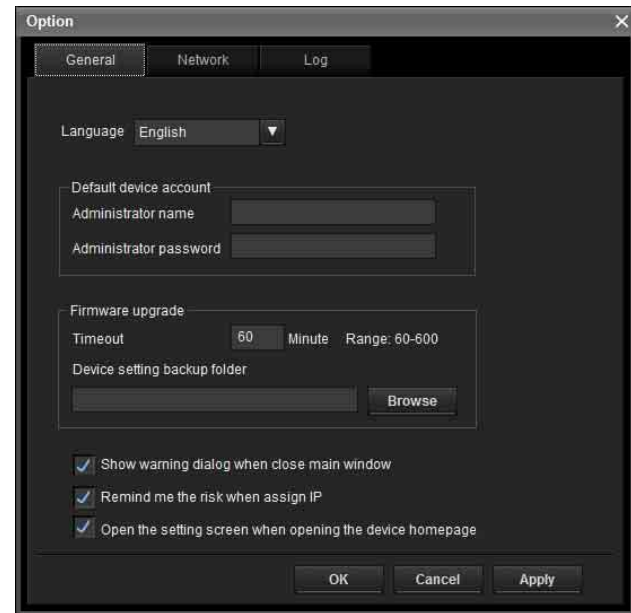
Updating thumbnail images

To display the thumbnail, select the camera of the thumbnail you wish to update and click **Reload** to display the current camera image as the thumbnail.

Setting SNC toolbox options

Select **Option** from the **Tools** menu to display the “Option” dialog. This dialog consists of three tabs: **General**, **Network** and **Log**.

General tab



Language

Set language.

Default device account

Set the initial values of user name and password for the administrator accessing the device for each device.

Firmware Upgrade

Make settings related to firmware upgrades.

Timeout: Configure the Timeout of the device when an upgrade is performed.

Device setting backup folder: Set the backup folder for the setting file when an upgrade is performed. Click **Browse** to display the folder selection dialog and specify the folder in which to save the file.

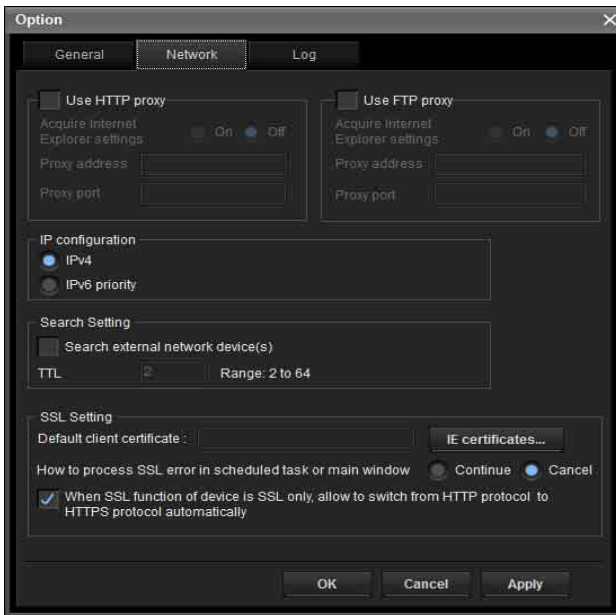
Show warning dialog when close main window:

Select to display the warning message.

Remind me the risk when assign IP: Select to display the warning message.

Open the setting screen when opening the device homepage: Select to open the setting screen directly.

Network tab



Configure the HTTP proxy and FTP proxy.
When using HTTP proxy, check **Use HTTP proxy**.
When using FTP proxy, check **Use FTP proxy**.
To obtain the proxy settings including the automatic configuration and exceptions from Internet Explorer, set **Acquire Internet Explorer settings** to **On**.
If you are not obtaining the proxy settings from Internet Explorer, set **Acquire Internet Explorer settings** to **Off**, and enter the proxy address and proxy port number.

IP configuration

Select the IP address used for the Search result folder.

IPv4: Uses IPv4.

IPv6 priority: Uses IPv6. Uses IPv4 if IPv6 is not selected.

Search Setting

Configures the Search range.

Search external network device(s): Select this option to search outside the network segment.

TTL: Configures the range to search when **Search external network device(s)** is enabled.

Notes

- When the devices outside the network segment are not found, check the following items:
 - check the multicast setting of the router to search the devices by using multicast
 - an IP address of the device to be searched is set correctly
 - if the SSL setting is set on the device, it cannot be searched as a device outside the network segment. Disable the SSL setting of the device.
- If **Search external network device(s)** is enabled, the network load can be higher as the multicast packet flows on the network on a regular basis.

SSL Setting

Configure the SSL setting.

Default client certificate: Enter the client certificate to use.

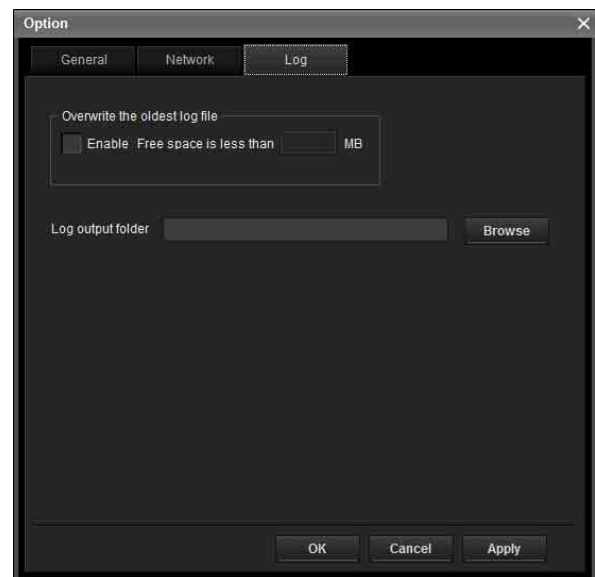
How to process SSL errors in scheduled task or main window: Select **Continue** or **Cancel**.

When SSL function of device is SSL only, allow to switch from HTTP protocol to HTTPS protocol automatically: Check this box if necessary.

Notes

- When you have changed the SSL setting, restart the SNC toolbox.
- The model on sale in China does not support the SSL function.
- Only the SSL setting registered in My device activates.

Log tab



Overwrite the oldest log file

To set the size of the log file, check **Enable** and specify the minimum required space for a log file.

Log output folder

Click **Browse** to display the folder selection dialog. Specify the folder to save the log.

Using Privacy Masking — Masking a Camera Image

The Privacy Masking function of SNC toolbox allows you to mask parts of the camera image to be transmitted.

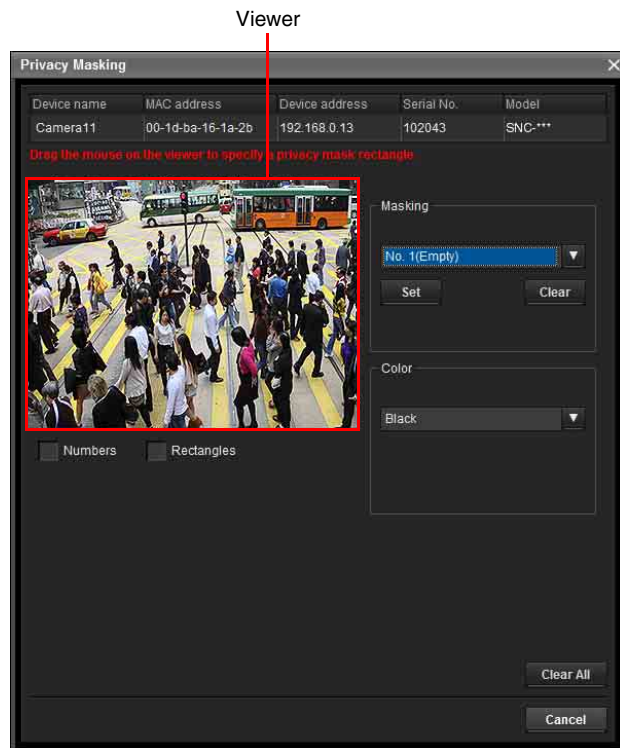
- 1 Select the camera to set a privacy mask from the Device list.
- 2 Click **Masking**.

Using the Privacy Masking

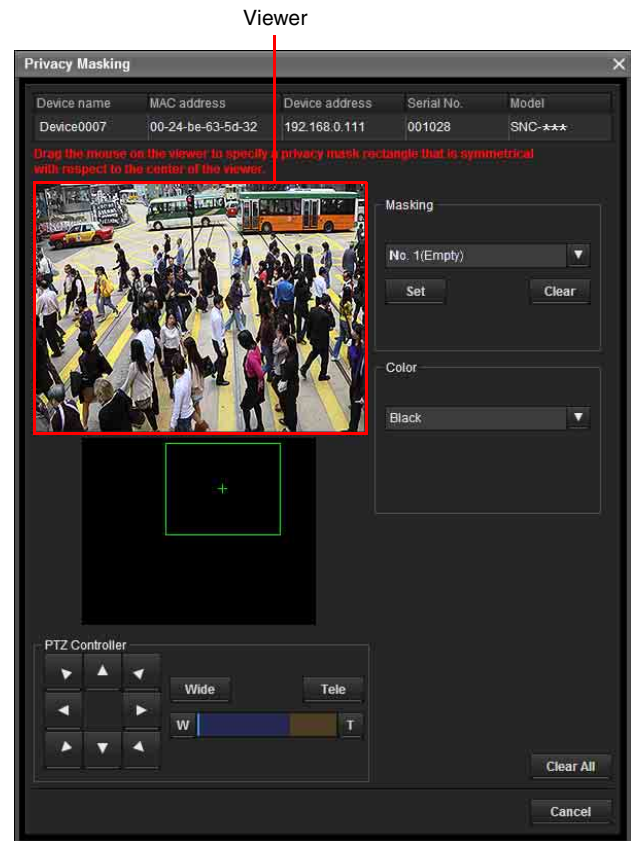
The Privacy Masking screen enables you to set the privacy mask position.
Click **Masking** to display the Privacy Masking screen.

Privacy Masking screen

PTZ function off:



PTZ function on:



Viewer

A live image of the camera is displayed. You can specify the position of the privacy mask in this area.

Numbers

The set mask number is displayed in the Viewer.

Frame

Display the frame of the set mask to distinguish the mask area when the set mask is overlapped.

Panorama area

Display the panorama.

The set privacy mask is displayed by numbers on the panorama. When the panorama is clicked, the camera will focus on the place clicked.

Note

If a panorama image has not been created, the default image is displayed.

PTZ controller

Allows you to pan, tilt and zoom the camera.

Pan/tilt operation

Click the arrows in the direction you want the camera to move. Press and hold the arrows to move the camera continuously.

Zoom operation

Click the **Wide** button to zoom out, click the **Tele** button to zoom in. Press and hold the button to zoom continuously.

The zoom bar displays the current zoom position with **Wide** at the right end, and **Tele** at the left end. Click the **W** button to adjust the zoom to **Wide**. Click the **T** button to adjust the zoom to **Tele**.

Privacy mask setting section

Allows you to set or delete the privacy mask.

Set: Register the area specified on the viewer as a privacy mask area.
Click **Set** and the portion of the viewer image is masked with the privacy mask. The color of the privacy mask is that selected with the **Color** drop-down list.

Note

If the mask area is close to the bottom of the image, the background at the bottom may still be visible.

Clear: Click to delete the privacy mask.

Color

Specify the color or mosaic of privacy masks. This setting is common to every privacy mask.

Clear All

Click to delete all privacy masks simultaneously.

Setting a privacy mask

To set a privacy mask in a desired position, do the following:

- 1 Specify the privacy mask area by dragging the mouse on the viewer.
- 2 Select the color or mosaic of the mask from the **Color** drop-down list.

Note

The color is common to every privacy mask. The color last selected is applied.

- 3 Select the desired privacy mask number in the privacy mask setting section, and then click **Set** of the corresponding number.
The mask is displayed on the viewer.

Privacy mask setting range

See User's Guide for the privacy mask setting range.

Using Panorama Creator

— Creating a Panorama Image

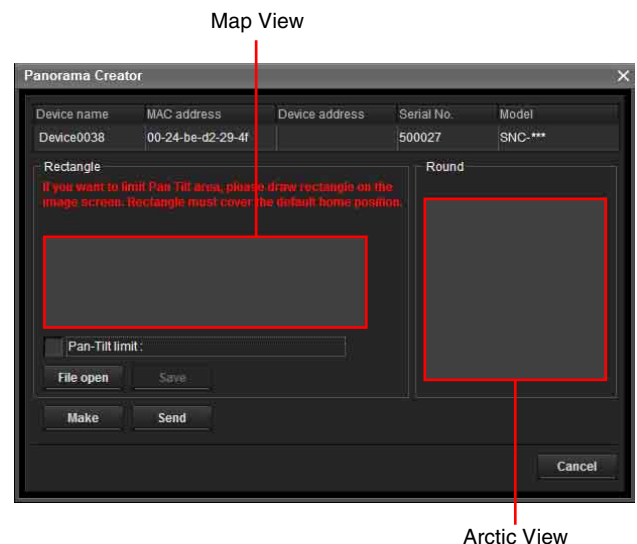
The Panorama Creator function of SNC toolbox allows you to create a panorama image to be displayed on the main viewer.

Using the panorama image, you can move the camera to a desired position simply by clicking on the image. This section explains setup and operation of Panorama Creator.

Starting the Panorama Creator

- 1 Select the camera to create the panorama image from the Device list.
- 2 Click **Panorama**.
Panorama Creator opens.

Using Panorama Creator



Viewer

The created panorama image is displayed in the viewer. This is not available for the camera which cannot swivel 360 degrees.

Pan-Tilt limit

Specify the camera movement area on the panorama image.

Drag the mouse to draw a rectangle within which the camera movement is limited. You can enlarge, reduce or move the created rectangle. To erase the rectangle, right-click on the mouse or remove the check for pan/tilt restrictions.

Note

The edges of a panorama image may not be displayed correctly when the camera is zoomed in.

Make

Starts shooting to create a panorama image (a complete 360-degree panorama image).

Tips

- Panorama images have two formats: Map view and Arctic view.
- The exposure and white balance settings are fixed while a panorama image is being created. To create a clear panorama image, set **Exposure** to **Full auto** and **White balance** to **Auto** in the Camera menu and point the camera at the main subject before starting shooting.

File open

Allows use of a Bitmap or JPEG image file instead of a panorama image.

Notes

- Only Map view is available.
- The size of the image in the file should be 320 × 90 pixels (horizontal/vertical). Other image sizes are not supported.

Save

You can save the panorama image in a file.

Note

Only Map view panorama images can be saved.

Send

Transmits a panorama image converted into a JPEG file to the camera.

Both Map view and Arctic view panorama images are sent to the camera.

Creating and transmitting a panorama image

- 1 Click **Make** on the Main tab to start shooting. A panorama image will be created.

Note

Do not perform settings of the camera or move the camera during shooting.

- 2 Specify the camera movement area by dragging the mouse to draw a rectangle on the Map view panorama image.

The specified camera movement area will be effective when the panorama image is saved in the camera.

- 3 Click **Send** to transmit the panorama image to the camera.

The panorama image is saved in the camera. You can use the saved panorama image when you control panning and tilting from the main viewer.

Saving a custom image to the camera

You can save a custom image to the camera in spite of the panorama image shot by the camera.

Prepare the image to conform to the following requirements:

- File format: JPEG or Bitmap
- Image size: 320 × 90 pixels (horizontal/vertical)

The camera does not support use of images that do not conform to the above conditions.

- 1 Click **File open** on the Main tab. The File dialog opens.
- 2 Select the image you have prepared.
- 3 Specify the camera movement area by dragging the mouse to draw a rectangle on the panorama image. The specified camera movement area will be effective when the panorama image is saved in the camera.
- 4 Click **Send** to transmit the prepared image to the camera.

The image is saved in the camera. You can use the saved image when you control panning and tilting from the main viewer.

Tip

The panorama image is the still image converted from the image taken when you were going to create a panorama image with Panorama Creator. When the camera is moved or when the layout around the camera is changed, create the panorama image again.

Using the Custom Homepage — Setting the customized homepage

The Custom Homepage function of the SNC toolbox allows you to store the homepage that you have created in the camera and watch it.

Notes on creating the homepage

When you are creating the homepage, note the following points.

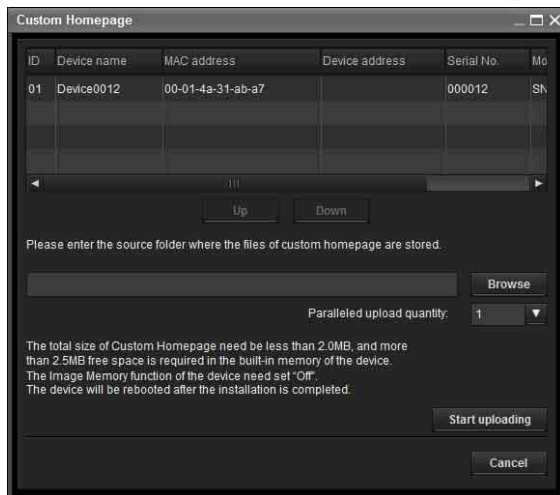
- The file name should be typed using up to 24 characters including the extension.
- The file size of the homepage should be 2.0 MB or less.
- To see the created homepage, set the **Homepage** in the Layout tab from viewer menu.

Uploading the homepage to the camera using the Custom Homepage

- 1 Select the device to upload from the Device list. You can select multiple devices at the same time.
- 2 Click the **Custom Homepage**. The “Custom Homepage” dialog opens. Read the notes carefully.

Note

Depending on the proxy server, communication with the camera may not be performed correctly. In that case, connect the camera to the same network segment, etc. and execute the **Custom Homepage** without using a proxy server.



- 3 Type the path in which your homepage is stored.
- 4 Click **Start uploading**. Uploading of the homepage file to the camera starts.
- 5 Click **Cancel** to exit the program.

Creating and Uploading the Voice alert file

The Voice alert file function allows you to create a Voice alert file and upload the Voice alert file to a device.

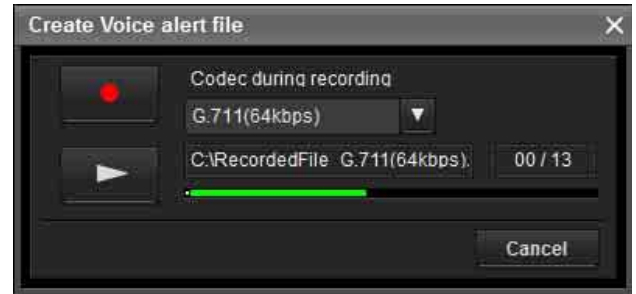
Using Create Voice alert file

From the **Tools** menu, select **Create Voice alert file** and **Create** in this order.

The SNC toolbox contains a sample of a Voice alert file. To create new a Voice alert file, use this function.

Note

Use this function by inputting the sound to be recorded from the microphone input of your computer.



 (save) /  (stop)

Clicking  starts recording sound via the computer's microphone. The maximum recording time is 30 seconds.

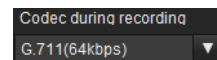
The codec specified in “Codec during recording” is used for recording.

To stop recording, click . Recording will stop automatically in 30 seconds.

When recording is completed, the recorded Voice alert file will be saved to the computer.

Note

Use a file name that is 33 characters or less.



(Codec during recording)

Select the codec during recording from the following.

Audio codec	Transmission rate
G.711(μ-LAW)	64kbps
G.726	40kbps
G.726	32kbps
G.726	24kbps
G.726	16kbps
AAC	128kbps
AAC	64kbps

 (playback) /  (stop)

Clicking  starts playback.

To stop playback, click .

C:\RecordedFile G.711(64kbps). (Voice alert file display)

Displays the name of the saved Voice alert file.



(recording/playback progress bar)

You can check recording or playback progress with this bar.

During recording, the remaining recording time is displayed on the upper right of the bar.

During playback, the current playback time/the Voice alert file length are displayed in seconds on the upper right of the bar.

Canceling

Close the Create Voice alert file screen.

Creating the Voice alert file

- 1 Click  to record a Voice alert file.
- 2 Click  to stop recording the Voice alert file. Alternatively, recording stops automatically after 30 seconds. When recording is completed, the recorded Voice alert file will be saved to the computer.

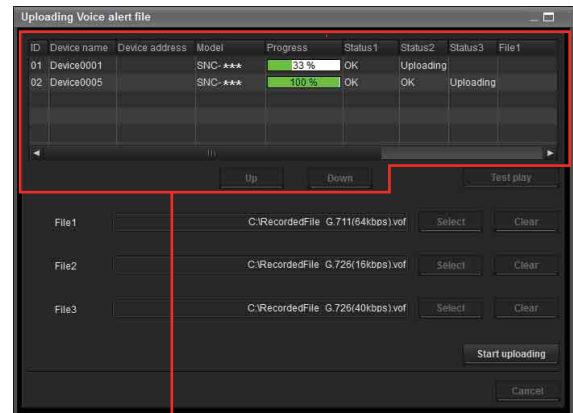
Checking the Voice alert file

- 1 Click  to start the playback of the recorded Voice alert file. You can check the Voice alert file.
- 2 Click  to stop the playback of the Voice alert file. Alternatively, the playback stops automatically after the Voice alert file has completed playing.

Using Uploading Voice alert file

- 1 From the Device list, select a device to upload a Voice alert file. You can select multiple devices at the same time.

- 2 Right-click the mouse and select **Voice alert file** and **Upload** in this order from the displayed menu. The Uploading Voice alert file screen will be displayed.



Device list

Tip

The Uploading Voice alert file screen can also be displayed using the following method:

- From the **Tools** menu, select **Voice alert file** and **Upload** in this order.

Device List

Devices to be used for the Uploading Voice alert file are displayed in a list.

During uploading, the progress bar is displayed.

Status 1, Status 2, Status 3

Displays the current status as shown below.

Blank: This is the default status.

Not supported: The Voice alert file is not supported by the device.

Uploading: The Voice alert file is being uploaded.

OK: The Voice alert file uploaded successfully.

Failed: Uploading of the Voice alert file failed.

Cancel: Uploading of the Voice alert file is canceled. The current status is displayed by file number.

Display sample:

ID	Device name	Device address	Model	Progress	Status1	Status2	Status3	File1
01	Device0001		SNC-***	33 %	OK	Uploading		
02	Device0005		SNC-***	100 %	OK	OK	Uploading	

File1, File2, File3

Voice alert file names currently uploaded in the device are displayed. If the device does not support File2 and File3, <No match> is displayed.

Up/Down: Selects the order of devices to be uploaded.

Test play

Displays the Test play screen to test play.

File

Displays the selected file names.

Clear

Clears the selected Voice alert file.

Select

Displays the Select Voice alert file screen to select a Voice alert file to be uploaded.

Start uploading

Starts uploading a Voice alert file. When uploading starts, it changes to **Stop uploading**.

Cancel

Exit Uploading Voice alert file.

Note

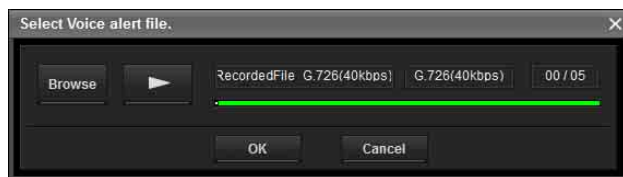
When uploading of a Voice alert file fails, select “**Tool Log**” from the **Tools** menu to check the log.

Select Voice alert file

Allows you to start the playback to select or check a Voice alert file to be uploaded.

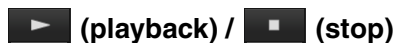
Click **Select**.

The Select Voice alert file screen is displayed.



Browse

Reads the Voice alert file saved in the computer.



(playback) / (stop)

After reading a Voice alert file, click  to start the playback. To stop the playback, click .



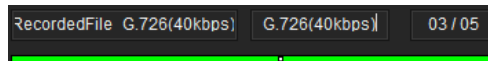
(Voice alert file display)

Displays the name of the read Voice alert file.



(Voice alert file codec display)

Displays the codec of the read Voice alert file.



(playback progress bar)

You can check the playback progress with this bar.

On the upper right of the bar, the current playback time/ the Voice alert file length are displayed in seconds.

OK

Selects the read Voice alert file and closes the Select Voice alert file screen.

Cancel

Closes the Select Voice alert file screen with no Voice alert file selected.

Reading the Voice alert file

Click **Browse** to select a Voice alert file saved in your computer. The selected file name is displayed in the text box.

Checking the Voice alert file

- 1 Click  to start the playback of the selected Voice alert file.
You can check the Voice alert file.
- 2 Click  to stop the playback of the Voice alert file.
Alternatively, the playback stops automatically after the Voice alert file has completed playing.

Selecting the Voice alert file

Click **OK** to select the read Voice alert file.

Click **Cancel** to close the Select Voice alert file screen with no Voice alert file selected.

Uploading the Voice alert file

Uploads a Voice alert file to the device.

Uploading the Voice alert file

Click **Start uploading** to upload all the selected Voice alert files to the device.

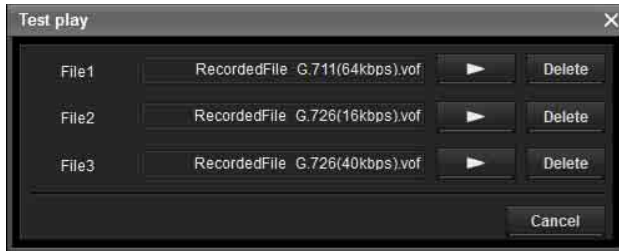
Notes

- To stop uploading, click **Stop uploading**. However, devices that begin uploading a file cannot be canceled until the file has completed uploading.
- The uploaded Voice alert file will be overwritten. If no file is selected, the file corresponding to the device number will not be deleted by clicking **Start uploading**.
- When uploading of a Voice alert file fails, select “**Tool Log**” from the **Tools** menu to check the log.

Test playing/Deleting the Uploaded Voice alert file

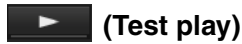
Allows you to test play or delete an uploaded Voice alert file.

Select a device from Device list, and click **Test play**. The Test play screen is displayed.



RecordedFile G.711(64kbps).vof (uploaded Voice alert file display)

Displays the name of the uploaded Voice alert file.



Starts the test play of the uploaded Voice alert file on the device.

Delete

Deletes the uploaded Voice alert file.

Notes

- When multiple devices are selected from the Device list, the Test play function cannot be used.
- To test play, check if the audio output of the device is connected to the speaker.

Starting the Test play

Click  to start the test play of the Voice alert file uploaded in the device once.

Deleting the Voice alert file

To delete the Voice alert file uploaded in the device, click **Delete**.

Using the Firmware Upgrade

The Firmware Upgrade function of the SNC toolbox allows you to upgrade the firmware of the device. This function can be performed for up to 16 devices at the same time.

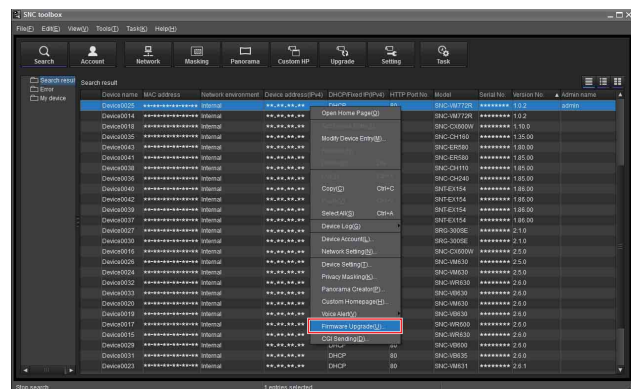
Notes

- Do not turn off the power until upgrading is completed.
- You should be logged in as an administrator to upgrade the firmware.

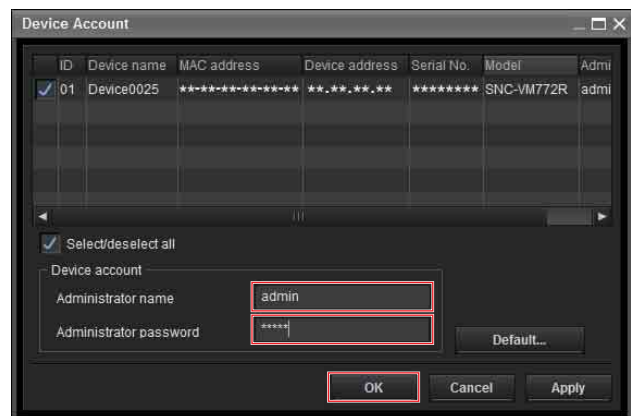
- We recommend that you change the IP address of the device to a static IP address before you start upgrading.
- If the device is set to DHCP, you may not be able to check when upgrade is complete.
- Set the Edge Storage function or motion detection of the device to off before you start upgrading.

Selecting a device

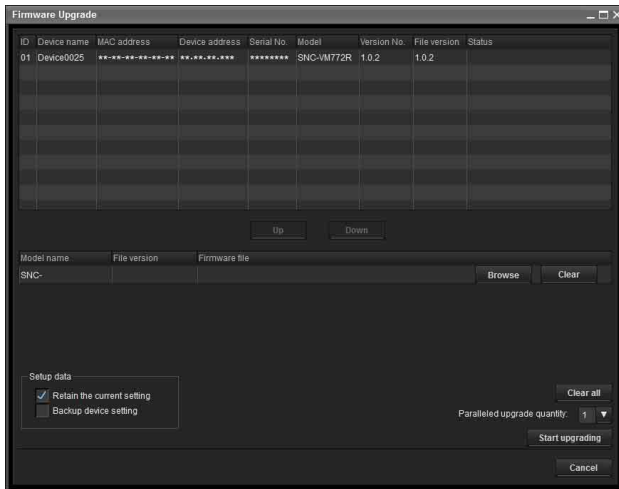
- Select the device to upgrade its firmware from the Device list.
You can select multiple devices at the same time.
- After selecting the device to upgrade its firmware, right-click the mouse and select **Firmware Upgrade** from the dropdown list.



- If the selected device has no device account information, the Device Account screen is displayed.
Enter the **Administrator name** and **Administrator password** then click **OK**. The factory default is **admin** for both **Administrator name** and **Administrator password**.



4 The Firmware Upgrade screen is displayed.

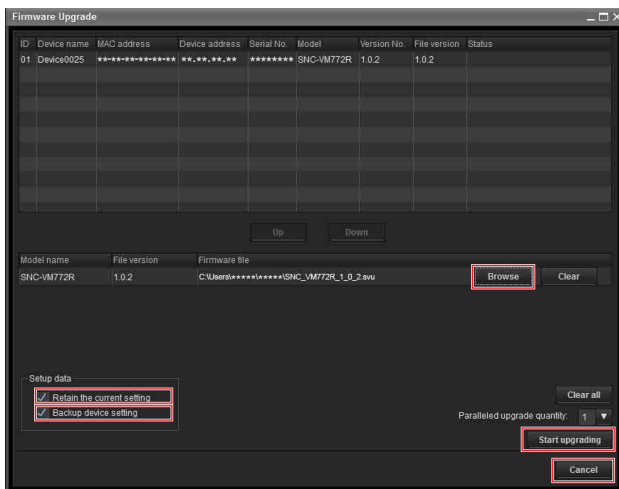


Tips

- The Firmware Upgrade screen can also be displayed using the following method:
Select **Firmware Upgrade** from the **Tools** menu.
- If the selected device has no device account information, the Firmware Upgrade screen may be displayed instead of the Device Account screen. When upgrading fails without the device account setting, enter the device account information and retry the upgrading. (SNC-VB770/VM772R)

Upgrading

- 1 Set the order to perform device upgrading using **Up** and **Down**.
- 2 Click **Browse** and select a firmware file for each model.
After the file is loaded into the SNC toolbox, the directory of the firmware file is displayed on the left side of the **Browse** button.



- 3 Select how many devices to upgrade at the same time in **Paralleled upgrade quantity**.

- 4 To retain the setting data used for the current device, check **Retain the current setting**.

- 5 To back up the device setting in the computer, check **Backup device setting**.
The setting file is stored in the following folder:
When using Windows 7, Windows 8.1 or Windows 10
Folder: <My Document>\Sony\SNC toolbox\cfg\<YYMMDDHHMM>
(YY: Year, MM: Month, DD: Day, HH: Hour, MM: Minute)
File name: <MAC address>.cfg

Tip

You can specify the backup folder under **Device setting backup folder** on the **General** tab in **Option** from the **Tools** menu.

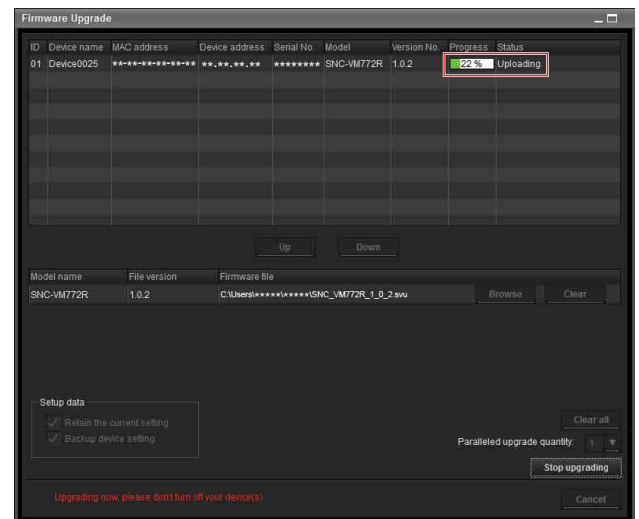
- 6 Click **Start upgrading**.
Upgrading starts.

Elapsed time display for upgrading

During upgrading, the progress and status are displayed. You can cancel upgrading by clicking **Stop upgrading**.

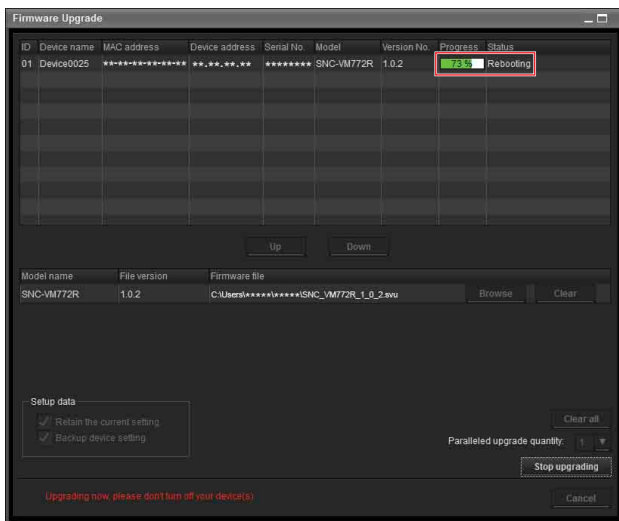
Note

Do not turn off the power while the progress and status are being displayed.
If you are using SNC-VR772R or SNC-VB770, you cannot cancel upgrading even by clicking **Stop upgrading** while **Uploading** is being displayed. If **Retain the current setting** is not checked, all the settings will be initialized.



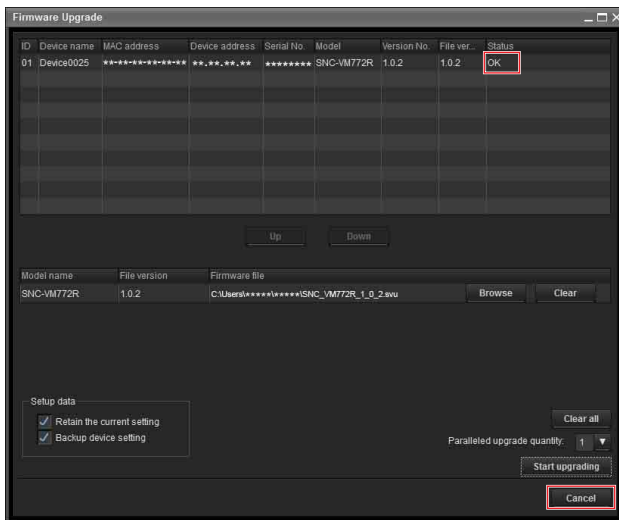
Restart after upgrading

When upgrading is completed, the device restarts and **Rebooting** is displayed for **Status**.



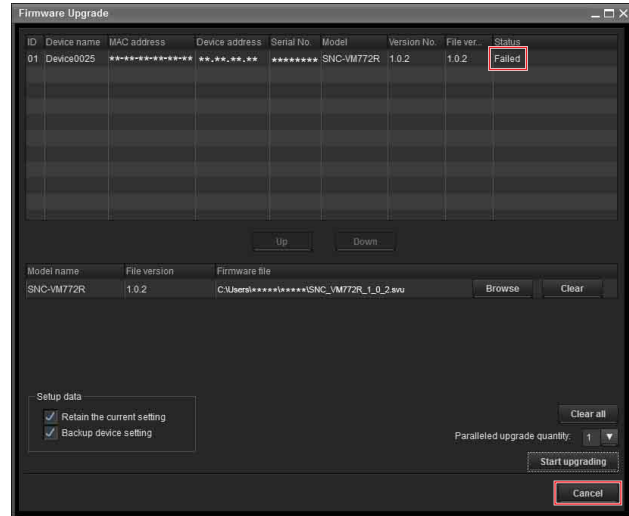
When upgrading is completed

After the device restarts, **OK** is displayed for **Status**. Click **Cancel** to close the Firmware Upgrade screen.

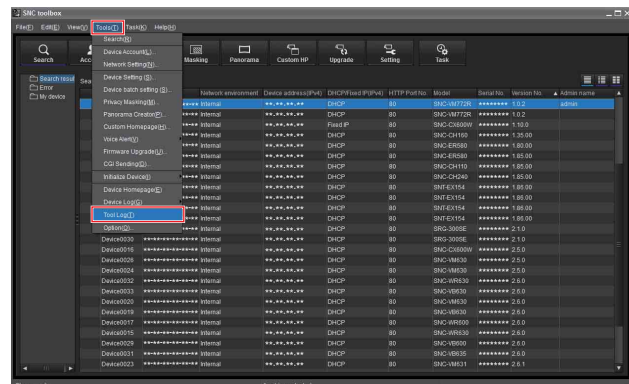


When upgrading fails

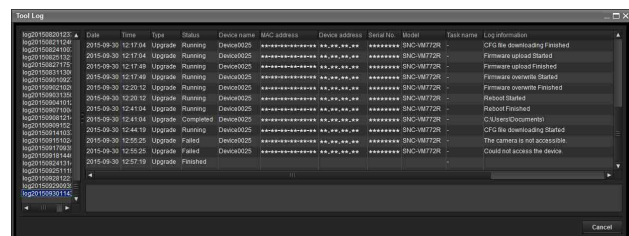
When upgrading is not successfully completed, **Failed** is displayed for **Status**. Click **Cancel** to close the Firmware Upgrade screen.



- 1 Select **Tool Log** from the **Tools** menu to check the log.



- 2 The toolbox log is displayed to show the reason of the upgrading failure. As seen in the following log, you can check the reason of the failure.

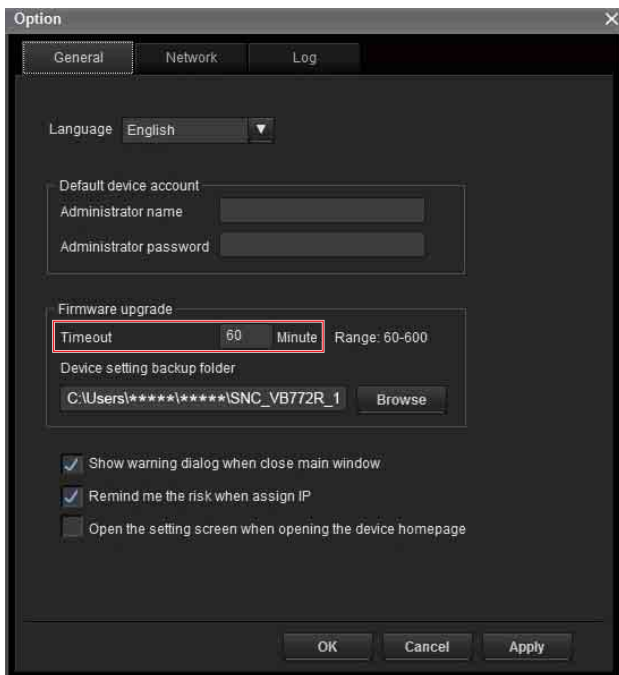
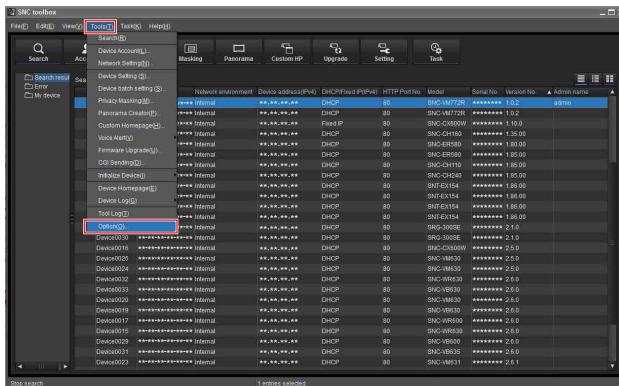


When a device times out while upgrading its firmware

The Firmware Upgrade function has a time limit. When this limit expires, firmware upgrade may be canceled, assuming that a failure occurred in the system. If the network environment is unstable and runs at a low speed or if SSL communication is enabled, a device may cancel receiving the firmware due to the time limit. The message **Uploading svu file failure. Timeout** appears on the toolbox log.

Select **Option** from the **Tools** menu to display the **Option** dialog then set a larger value for **Timeout** on the **General** tab.

After setting the value between 60 and 600 (Minute), retry upgrading the device.

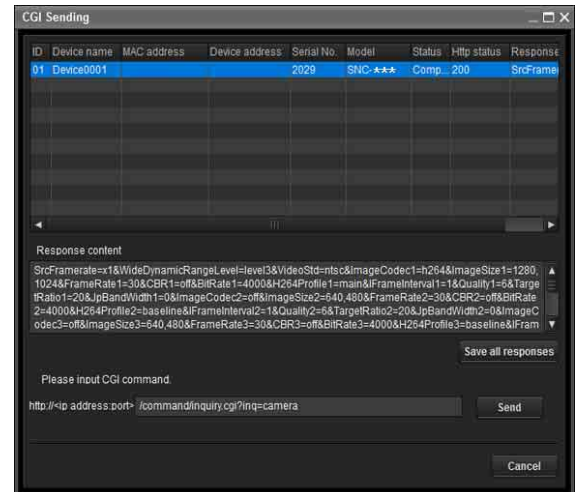


Using CGI Sending

The CGI Sending function allows you to send CGI to a device.

How to perform CGI Sending

- 1 From the Device list, select the camera to receive CGI.
- 2 Right click the mouse. Click **CGI Sending** from the displayed menu. The CGI Sending screen is displayed.

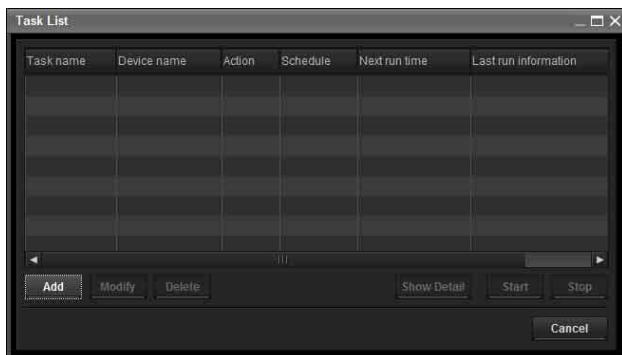


- 3 Enter a command in the CGI command box.
- 4 Click **Send**. The CGI command is sent to the selected camera(s) in order of **ID**.
- 5 When sending is completed, click **Save all responses**. **Response content** of all devices in the list, to which a CGI command is sent, will be saved in CSV format.

Using the Schedule Task

You can specify the time or interval to change the Device setting or perform Firmware upgrade.

Click **Task** to display the Task List, which shows a list of scheduled executable tasks.



Task List

Displays the list of scheduled executable tasks.

Add

Displays the Task Wizard.

Modify

You can edit a task.

Delete

You can delete a task.

Show Detail

Displays the detailed information on a task.

Start

This reserves a task.

Stop

You can cancel a task reservation.

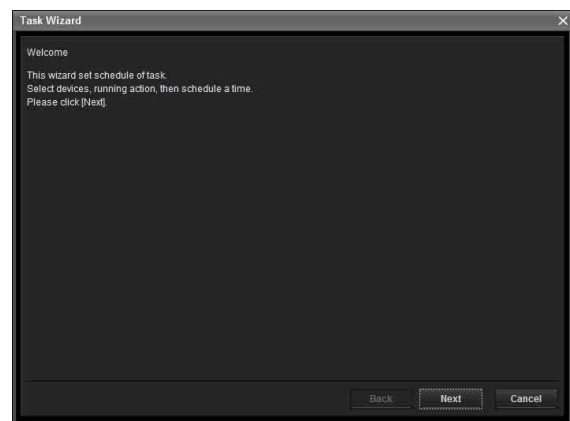
Cancel

Closes the Task List.

Creating a task

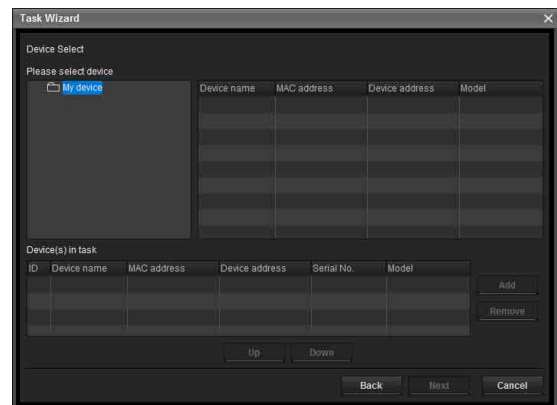
- 1 Click **Add**.

Displays **Task Wizard**.



- 2 Click **Next**.

- 3 Select a device to which the task is assigned. A list of devices registered in My device is displayed. Select the device you want to assign the task to from the My device list, and register in Device(s) in task list.



My Device: Display a list of cameras registered in My devices.

Device(s) in task: Display a list of devices set to execute a task.

Add: Register a device in Device(s) in task.

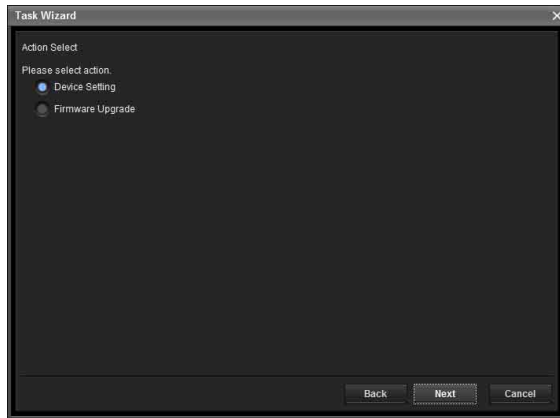
Remove: Removes a device from Device(s) in task.

Up/Down: Changes the order of devices in Device(s) in task.

- 4 Click **Next**.

- 5 Select the task action.

Select **Device Setting** or **Firmware Upgrade**.



6 Click **Next**.

For Device Setting:

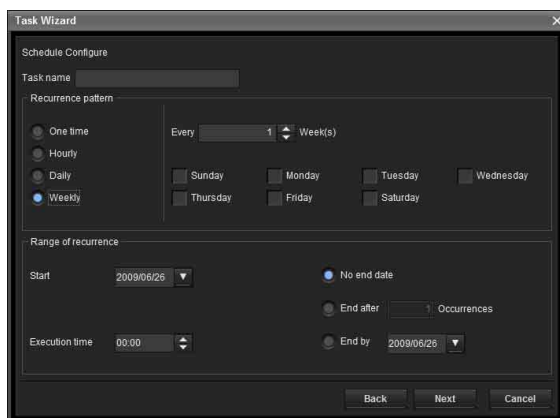
Edit the value for the setting you wish to change. See “Configuring the device setting” on page 24. for changing the values. Click **Next** to display the confirmation screen for setting change. Check to see if the setting is correct. If correction is needed, click **Back** to return to the previous screen to redo the setting.

For Firmware Upgrade:

Set the firmware for the device you want to upgrade. See “Using the Firmware Upgrade” on page 19 for setting firmware.

7 Click **Next**.

8 Set the schedule.



Task name

Name the task.

Recurrence pattern

Specify the operation interval.

One time: Runs the task once.

Hourly: Specify the operation frequency in units of hours. (Possible set value: 1 to 99)

Daily: Specify the operation frequency in units of days. (Possible set value: 1 to 99)

Weekly: Specify the operation frequency in units of weeks and days of the week. (Possible set value: 1 to 99)

Range of recurrence

Specify the starting date and time, and the end date and time.

Start: Set the starting date.

Execution time: Set the starting time.

No end date: This setting does not set an end date.

End after: Specify the number of times to execute the operation.

End by: Set the end date.

9 Click **Next**.

Check the setting when the final confirmation screen for task setting is displayed.

If correction is needed, click **Back** to return to the previous screen to redo the setting.

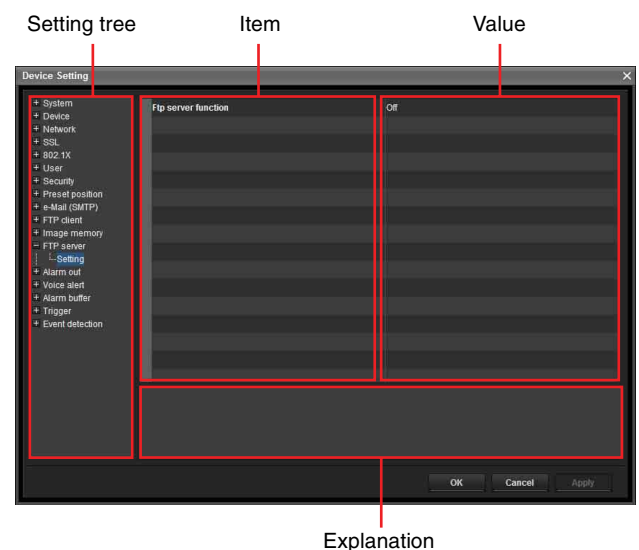
10 Click **Finish**.

Configuring the device setting

You can configure advanced settings for a device on the Device Setting screen.

When you select a device(s) on the Device list and select **Device Setting** from the **Tools** menu, or when you right click on the device selection screen and click **Device Setting** in the displayed menu, the Device Setting screen is displayed.

Display sample:



Explanation

Setting tree

All settings are sorted into categories. Click + to display the subcategories under a category. Click – to hide the subcategories.

Select a subcategory to display setting items on the right side of the screen.

Item

Displays the setting items. Select a line to change its value.

Value

Displays the value of an item. Select or enter a value to change the value.

Explanation

Displays the range of value for setting and supplementary explanations.

OK

Apply the setting and close the Device Setting screen. The main screen of SNC Toolbox is displayed.

Cancel

Close the Device Setting screen without changing the setting. The main screen of SNC Toolbox is displayed.

Apply

Apply the setting.

Other settings

See User's Guide for configuring the settings.

Configuring the batch setting of the devices

You can configure the setting for multiple devices in a batch on the Device batch setting screen.

Tip

- Before configuring the setting, create the setting list as a CSV format file.
- Separate each item with a “,” (comma)” and set **CRLF** as a delimiter between devices in the CSV format file.
- There are sample files in the following directory where the SNC toolbox is installed:
...\\Sony\\SNC toolbox\\SampleFiles

Setting items

Network Setting

- Video codec setting
- Date & time setting
- User 1 setting

For details of each setting item, refer to the sample files.

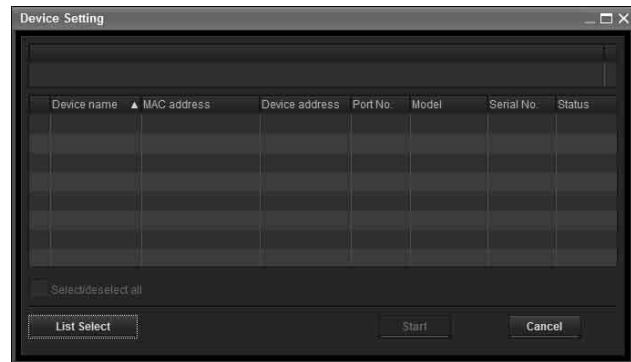
Note

Be careful when handling the password.
We recommend that you delete the CSV format file after using it.

1 Click **Device batch setting** under **Tools**.

2 Click the **List select** button.

Display sample:



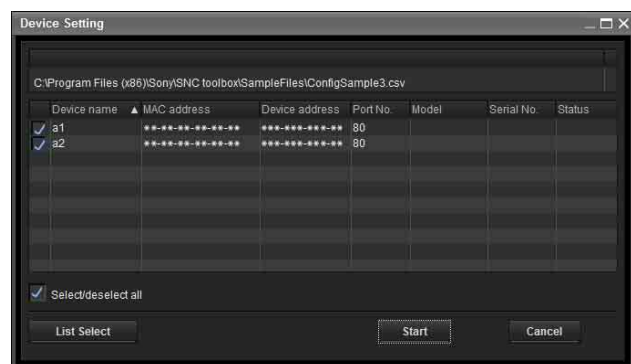
3 Select the created setting list and click the **Open** button. The contents of the CSV format file are imported.

4 Click the **Start** button.
The batch setting is started.

Tip

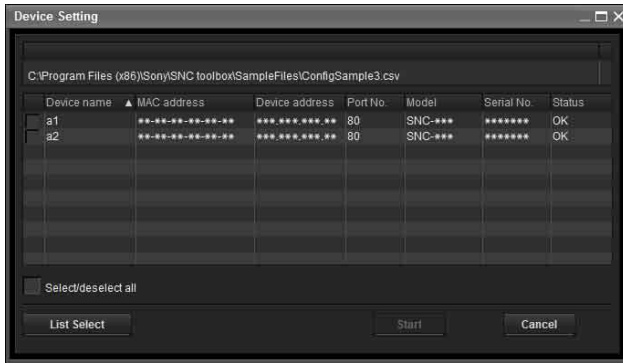
Only the row with the check box checked will be a target for the batch setting.
You can optionally set **ON/OFF** of the check box.

Display sample:



5 When the batch setting is completed, the status field displays **OK/Error**.
If the batch setting is completed successfully, the check box is to be OFF.

Display sample:



Device restart and initialization

You can restart and initialize (restore factory default) a selected device. Multiple devices can be selected simultaneously for restart and initialization.

Restarting a device

Click **Tools**, **Initialize Device** and **Reboot** in this order on the menu bar to restart the device.

Initializing a device

Click **Tools**, **Initialize Device** and **Factory Default** in this order on the menu bar to initialize the device (restore factory default).

Configuring Windows Firewall

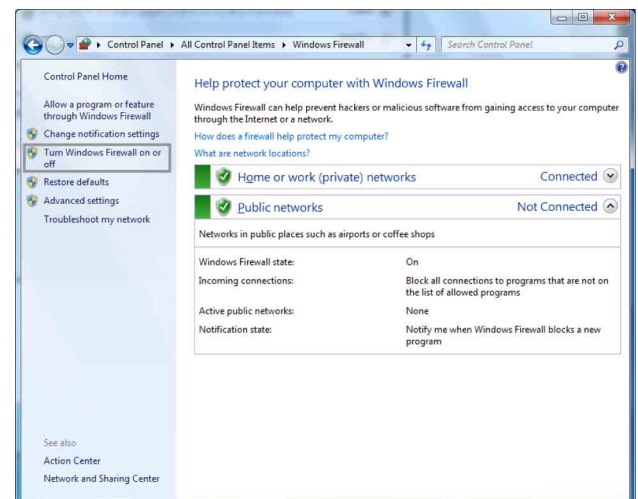
When using Windows 7

Configuring Windows Firewall

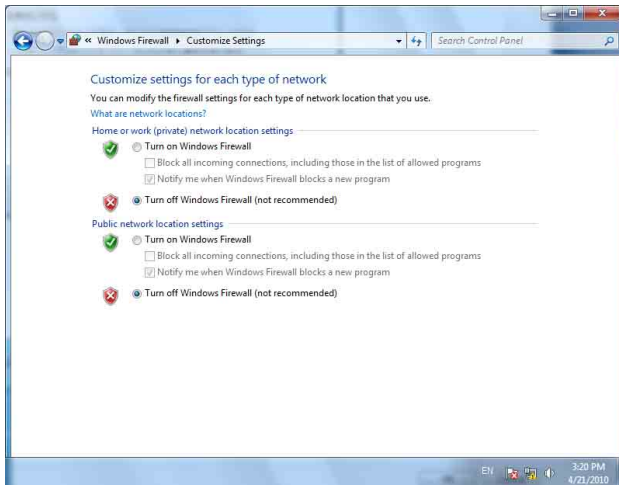
SNC toolbox or SNC audio upload tool may not operate correctly depending on the configuration of Windows Firewall. (No cameras are shown in the list even if they are detected.) In this case, confirm the Windows Firewall configuration as follows:

To turn Windows Firewall off

- 1 Select **Control Panel** from the **Start** menu of Windows.
- 2 Click **Windows Firewall**.
- 3 Select **Turn Windows Firewall on or off**.



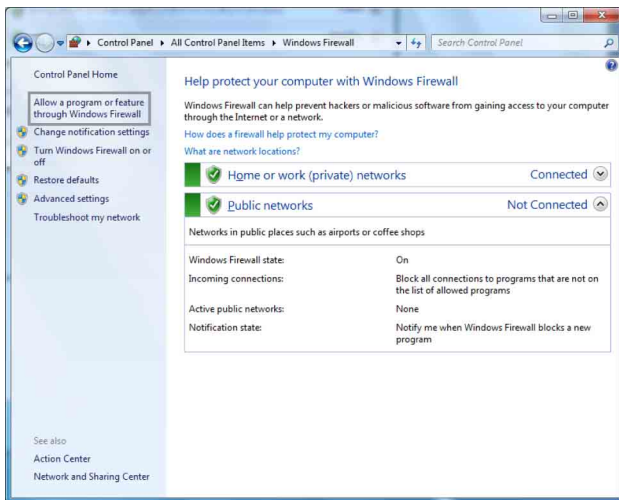
4 Select **Turn off Windows Firewall**.



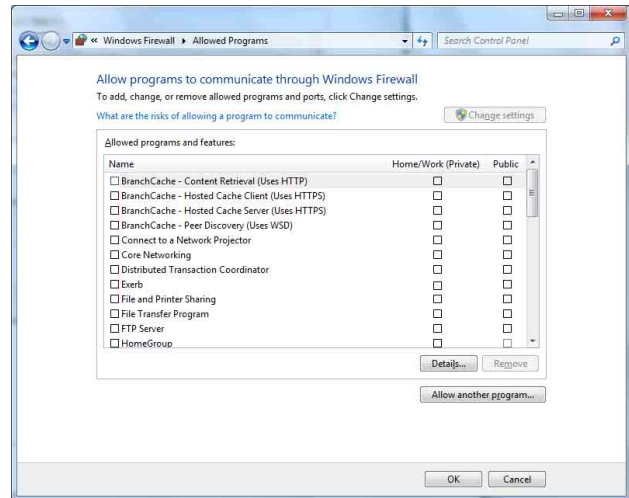
The cameras will be displayed in the list.

To turn Windows Firewall on

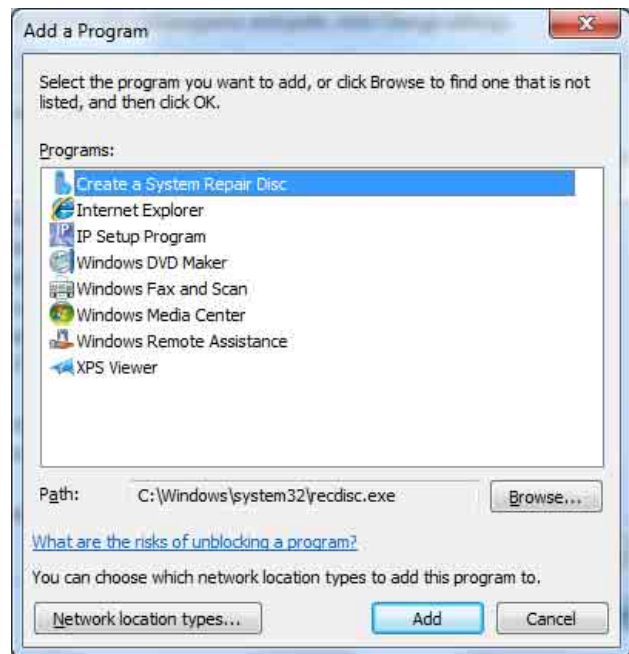
- 1 Select **Control Panel** from the **Start** menu of Windows.
- 2 Click **Windows Firewall**.
- 3 Select **Allow a program or feature through Windows Firewall**.



4 Select **Allow another program...**.



5 Add program.



When the above procedure is completed, the cameras connected in the local network are displayed in SNC toolbox or SNC audio upload tool.

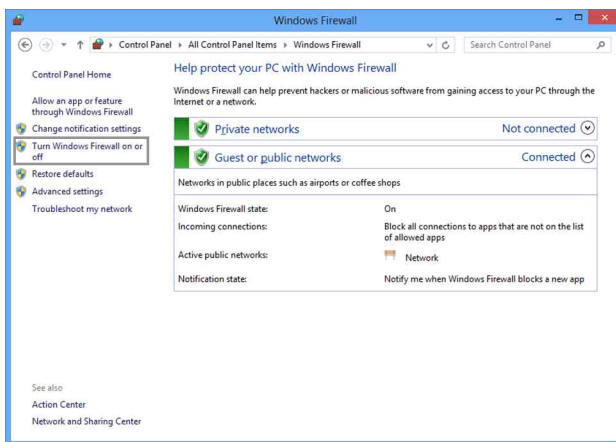
When using Windows 8.1 or Windows 10

Configuring Windows Firewall

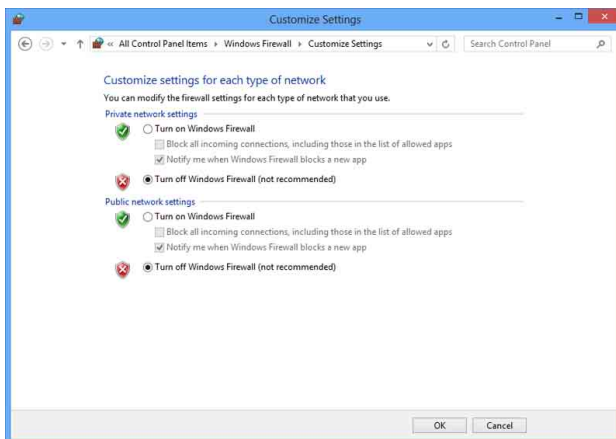
SNC toolbox or SNC audio upload tool may not operate correctly depending on the configuration of Windows Firewall. (No cameras are shown in the list even if they are detected.) In this case, confirm the Windows Firewall configuration as follows:

To turn Windows Firewall off

- 1 Press the Windows key + X, then select **Control Panel** from the displayed list.
- 2 Click **Windows Firewall**.
- 3 Select **Turn Windows Firewall on or off**.



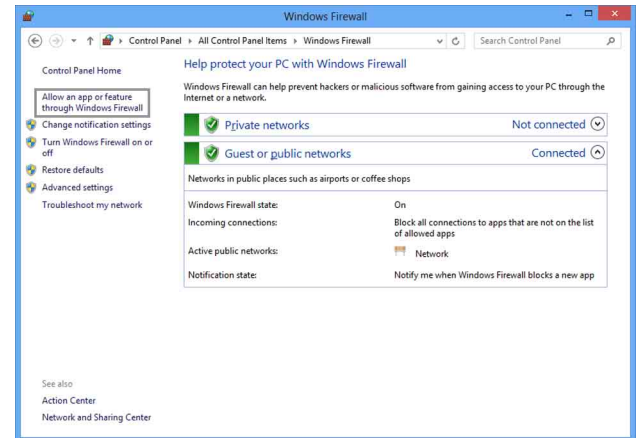
- 4 Select **Turn off Windows Firewall**.



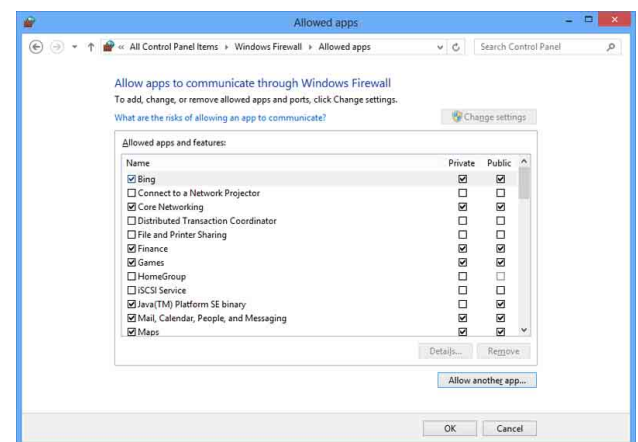
The cameras will be displayed in the list.

To turn Windows Firewall on

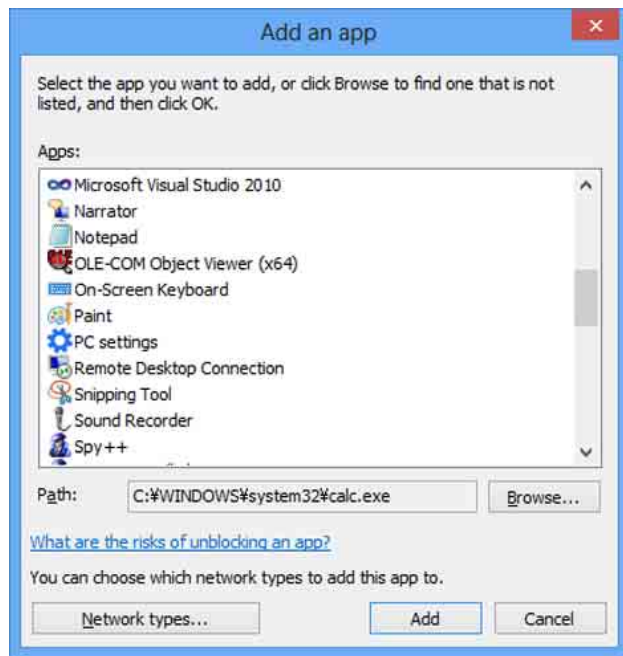
- 1 Press the Windows key + X, then select **Control Panel** from the displayed list.
- 2 Click **Windows Firewall**.
- 3 Select **Allow an app or feature through Windows Firewall**.



- 4 Select **Allow another app....**



5 Add an app.



When the above procedure is completed, the cameras connected in the local network are displayed in SNC toolbox or SNC audio upload tool.

<http://www.sony.net/>

Sony Corporation