

The Help Guide describes the operating procedures for the Virtual Webcam Driver for Remote Camera (VWD 1.1) (hereinafter referred to as the “software”).

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Overview

This software is an application for installation and use on a computer. The software allows you to use an RTSP stream received from a Sony network camera in a computer application (such as a web conferencing tool).

Operating Environment

This topic describes the computers and cameras supported by this software.

Computer

- Supported operating system
 - Windows 10/11 64-bit
 - macOS 10.15/11/12
- CPU: Intel Core 8th generation (Coffee Lake) or later (recommended)
- Memory: 8 GB or higher (recommended)
- Ethernet port for receiving RTSP stream
- Monitor with 1366×768 or higher resolution

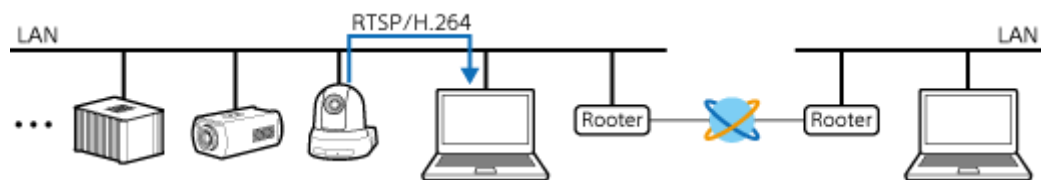
Camera (including Edge Analytics Appliance)

- BRC-X400/X401
- SRG-X400/X402/201M2/X120/HD1M2/XB25/XP1
- REA-C1000

Note

- BRC-X401 and SRG-X402/201M2/HD1M2 are China models.

Getting Ready



1 Configure camera settings.

For details, see "[Configuring Camera Settings.](#)"

2 Install the software on a computer.

For details, see "[Installing the Software.](#)"

3 Register cameras in the software.

For details, see "[Registering Cameras.](#)"

4 Use registered cameras.

For details, see "[Using a Registered Camera with a Web Conferencing Tool.](#)"

Configuring Camera Settings

This topic describes the settings required for using cameras with the software.

Camera settings are configured by accessing the camera from a web browser and displaying the setup menu.

Note

- See the camera manual for instructions on how to operate the camera.
- For each setup item <n>, select the codec number you intend to use in this software.

For BRC-X400/X401 or SRG-X400/X402/201M2/X120/HD1M2

Note

- BRC-X401 and SRG-X402/201M2/HD1M2 are China models.

Required settings

Menu	Tab	Item	Options
Icon in the top right of the live viewer screen			Power on
[Streaming]	[Streaming]	[Streaming mode] ^{*1}	[RTSP] ^{*1}
[Video]	[Video codec]	[Image <n>] > [Codec <n>]	[H.264]
[Security]	[SSL]	[SSL] > [Function]	[Disable] or [Enable (Allow HTTP connection for some clients)] ^{*2}

^{*1} For cameras running v2.1 and earlier, place a check mark in [RTSP setting] > [Enable]

^{*2} BRC-X400 and SRG-X400/X120 only

Recommended settings for web conferencing tools

Menu	Tab	Item	Options
[Video]	[Video codec]	[Image <n>] > [Size <n>]	[1280x720]
[Video]	[Video codec]	[Image <n>] > [Frame rate <n>]	[30]
[Audio]	[Audio]	[Send] > [Enable]	On

For SRG-XB25/XP1

Required settings

Menu	Tab	Item	Options
Icon in the top right of the live viewer screen			Power on
[Streaming]	[Streaming]	[Unicast streaming] > [Enable]	On

Menu	Tab	Item	Options
[Video]	[Video codec]	[Image <n>] > [Image codec <n>]*	[H.264]

* Select [Image codec 2] or [Image codec 3].

Recommended settings for web conferencing tools

Menu	Tab	Item	Options
[Video]	[Video codec]	[Image <n>] > [Size <n>]	[1280x720]
[Video]	[Video codec]	[Image <n>] > [Frame rate <n>]	[29.97]
[Audio]	[Audio]	[Send] > [Enable]	On

For REA-C1000

Required settings

Menu	Tab	Item	Options
Run the application.			
[Streaming]	[Streaming]	[Streaming Service]	[RTSP Server]
[Security]	[SSL]	[SSL Function]	[Disable] or [Enable (Allow HTTP connection as well for some clients)]

Recommended settings for web conferencing tools

Menu	Tab	Item	Options
[Streaming]	[Codec]	[Streaming Output <n>]	[HDMI OUT 1] or [HDMI OUT 2]*
[Streaming]	[Codec]	[Image Size <n>]	[1280x720]
[Streaming]	[Codec]	[Frame rate <n>]	[29.97p]
[Audio]	–	[Send]	[Enable]

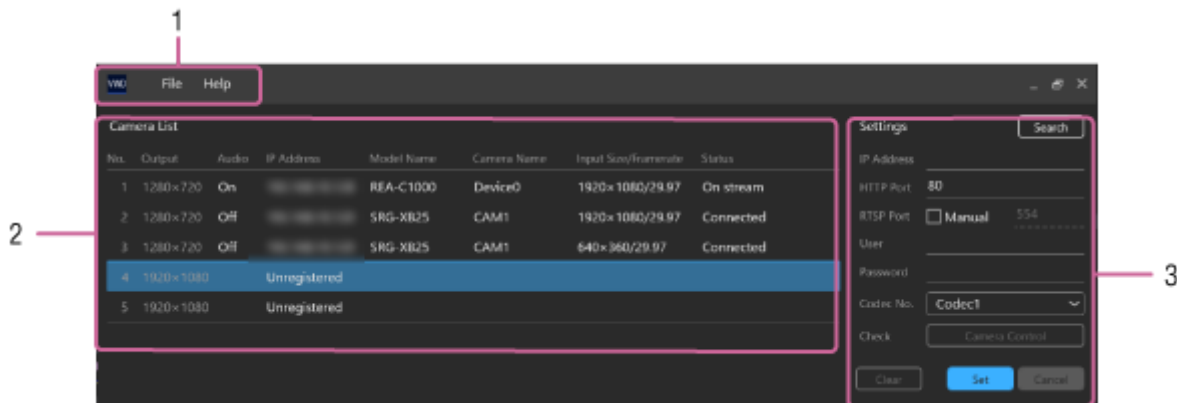
* Select according to the application being used.
For details about the image output destination, refer to the REA-C1000 manual.

Installing the Software

Installers are available for Windows and for macOS. Download the installer according to your operating environment. Launch the downloaded installer and follow the procedure to install the software.

Screen Configuration

Main window



1. Menu bar

- **[File]**
 - **[Exit]**: Exit this software.
 - **[Delete All Settings]**: Delete the configuration file saved by the software.
- **[Help]**
 - **[Help]**: Open the Help for the software in a web browser.
 - **[About]**: Display the version information.

2. [Camera List]

Displays the information about the cameras registered in the software. Select and double-click a camera to open the setup screen of the camera in a web browser. You can also right-click a camera and select [Delete] to delete a registered camera.

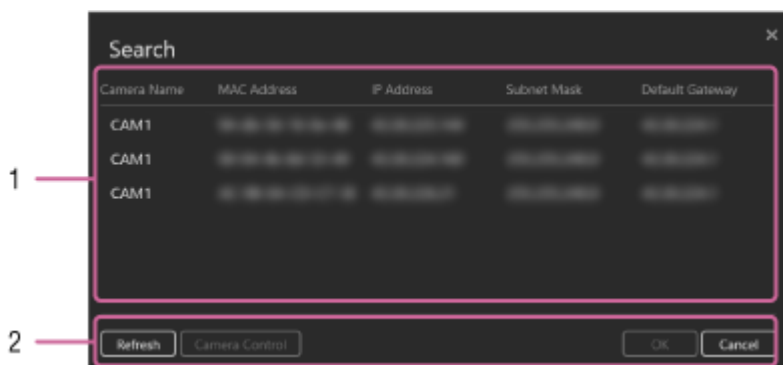
- **[Output]**: Displays the output image size. The size is set to 1280x720 (fixed) for No. 1 to No. 3, and to 1920x1080 (fixed) for No. 4 and No. 5.
- **[Audio]**: Displays the camera audio output status ([On]/[Off]/[Mute]). When using macOS, [Mute] is displayed only when another user is logged in and using this software on the same computer.
- **[IP Address]**: Displays the IP address that was configured when the camera was registered. If an address is not set, "Unregistered" is displayed.
- **[Model Name]**: Displays the model name acquired from the camera. If the IP address is not set or the model name cannot be acquired from the camera, this field is blank.
- **[Camera Name]**: Displays the camera name acquired from the camera. You can open the setup menu of the camera in a web browser and change the setting. If the IP address is not set or the camera name cannot be acquired from the camera, this field is blank.
- **[Input Size/Framerate]**: Displays the image size and frame rate acquired from the camera. If the IP address is not set, this field is blank.
- **[Status]**: Displays the camera connection status. If the IP address is not set, this field is blank.
For details, see "[Status List](#)."

3. [Settings]

This is used to configure cameras registered in the software. Each item displays the settings for the camera in the selected row in [Camera List].

- **[Search] button:** Opens the [Search] window.
- **[IP Address]:** Enter the IP address for the camera you want to register. When a camera is selected in the [Search] window, the IP address of the selected camera is entered automatically.
- **[HTTP Port]:** Enter the HTTP port number used to connect to the camera.
- **[RTSP Port]:** Enter the RTSP port number used to connect to the camera.
If you place a check mark in [Manual], enter the RTSP port number in the entry field.
If you do not place a check mark in [Manual], the RTSP server port number acquired from the camera is displayed in the entry field.
- **[User]:** Enter a user name (from among the user names registered in the camera beforehand) for use with this software.
- **[Password]:** Enter the password for the camera user name entered in [User].
- **[Codec No.]:** Select a codec number. If “Codec1” is selected for an SRG-XB25/XP1 camera, it will automatically be changed to “Codec2” upon registration. If “Codec3” is selected for an REA-C1000 camera, it will automatically be changed to “Codec1” upon registration.
- **[Check]:** Pressing the [Camera Control] button will display the setup screen of the camera in a web browser. This is only enabled if the camera IP address is set. You can also select and double-click the camera in [Camera List] to display the setup screen of the camera in a web browser.
- **[Clear] button:** Resets all items in the [Settings] area to default values. If you want to delete a registered camera, first clear all settings to default values and then press the [Set] button and confirm. You can also select and right-click a camera in [Camera List] and select [Delete] to delete the camera.
- **[Set] button:** Registers the settings configured in the [Settings] area for the camera.
- **[Cancel] button:** Cancels the changes made in the [Settings] area and returns to the current values.

[Search] window



1. Search results display area

Detects cameras supported by this software using the network camera IP Setup Protocol and displays the information for each camera.

Click [Camera Name] to sort the list display in ascending or descending order.

Double-click a displayed camera to copy the camera IP address to the [Settings] area of the main window and close the [Search] window.

2. Button area

- **[Refresh] button:** Conducts a camera search again and updates the details in the search results display area.
- **[Camera Control] button:** Displays the setup screen of the camera selected in the search results display area in a web browser.
- **[OK] button:** Copies the IP address of the camera selected in the search results display area to the [Settings] area of the main window, and closes [Search] window.
- **[Cancel] button:** Closes the [Search] window.

Registering Cameras

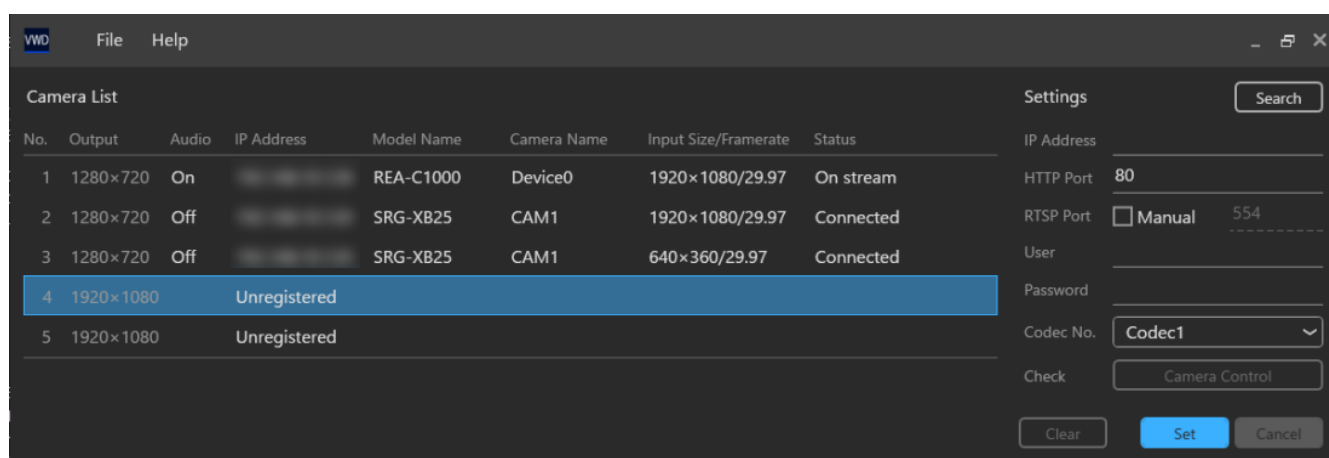
Install the software and configure camera settings beforehand.

When registering a camera in the software, you can use a Sony network camera RTSP stream as a virtual USB device.

1 Double-click “Virtual Webcam Driver for Remote Camera.”

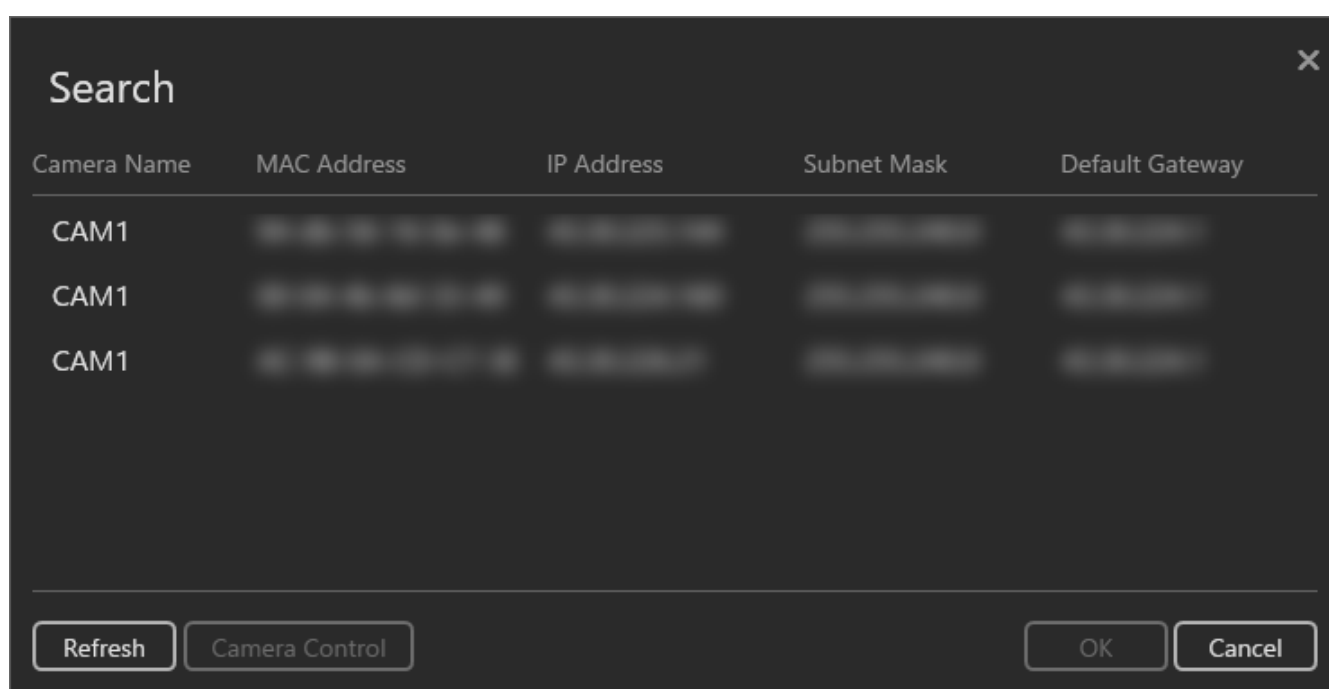
The software launches.

2 Select a camera you want to register in [Camera List].



3 Enter the information for the camera you want to register in the [Settings] area.

1. To search for a camera and automatically set the IP address using the software, click the [Search] button.
2. When the [Search] window appears, select the camera you want to register and click [OK].



4 Click [Set].

The camera is registered using the configured settings.

To register multiple cameras, repeat the above procedure for the cameras you want to register.

5 Exit the software.

When the software and cameras are on different network segments

If the computer on which this software is installed and the cameras you want to register are connected to different network segments, use NATP (Network Address Port Translator) to connect the software and cameras.

In this case, a check mark must be placed in [Manual] for [RTSP Port] and a value entered manually.

In each of the [IP Address], [HTTP Port], and [RTSP Port] fields, set values as viewed from the network to which the computer running this software is connected.

Note

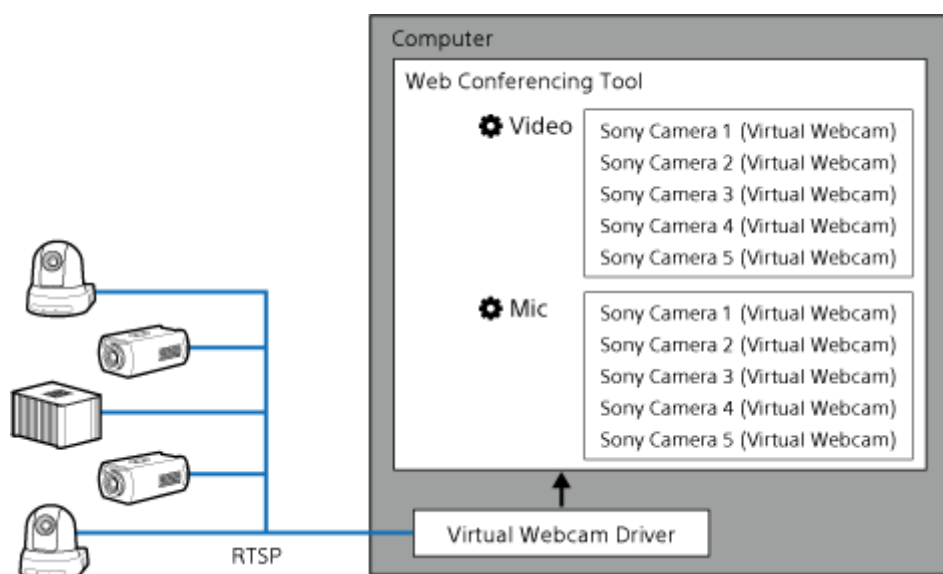
- This software cannot automatically obtain IP addresses and port numbers translated using NATP. For this reason, place a check mark in [Manual] and set [RTSP Port] manually. If you configure settings without a check mark in [Manual], the RTSP stream from the camera cannot be acquired using this software.

Using a Registered Camera with a Web Conferencing Tool

Cameras registered in the software are recognized by the computer as virtual USB devices “Sony Camera 1 (Virtual Webcam)” to “Sony Camera 5 (Virtual Webcam).” Once a camera is registered, it can subsequently be used without registering it again.

Names 1 to 5 correspond to the cameras registered in the rows in [Camera List] in the software.

To use one of these cameras, select a camera from “Sony Camera 1 (Virtual Webcam)” to “Sony Camera 5 (Virtual Webcam)” in the web conferencing tool.



Status List

This topic describes information displayed in the [Status] in [Camera List].

- **[Connected]**
Communication with cameras is possible and the RTSP stream can be acquired from the camera.
- **[On stream]**
The camera RTSP stream is being received and the image is being output to a web conferencing tool or other application.
- **[Not Confirmed]**
This is displayed when you press the [Set] button and an RTSP stream cannot be received from the camera. See [“Frequently Asked Questions”](#).
- **[Unknown camera]**
The camera is not supported by the software. Register a camera supported by the software.
- **[Camera standby]**
The camera is in standby state. Release from standby state.
- **[Not running]**
The application is not running on the REA-C1000.
- **[Unsupported codec]**
The camera image codec is not set to H.264. Set the image codec to H.264.
- **[RTSP setting disabled]**
The RTSP streaming function of the camera is turned off. Turn on the RTSP streaming function.
When using an REA-C1000 with general user privileges, this error is not displayed when the RTSP streaming function is turned off.
- **[Connection failed]**
The camera is not responding to CGI commands.
Check the camera connection status and camera information registered in the software.
 - Power is not being supplied to the camera.
 - The camera is not connected to the network.
 - The camera IP address or HTTP port set in the software is incorrect.
- **[Connection refused]**
Connection was denied by the camera. The maximum number simultaneous connections with the camera was exceeded, or the user information (user name and password) registered in the camera may have been changed.
- **[Unknown error]**
The RTSP stream cannot be acquired due to an unknown reason. See [“Frequently Asked Questions”](#).

Error Messages

- **[It's already running.]**

This appears if you try to launch another instance of the software. Use the software that is already running.

- **[Do you want to discard the changes?]**

This appears if you try to exit the software while editing camera information. To exit the software, click the [OK] button. To continue editing, click the [Cancel] button.

- **[Enter the IP Address in IPv4 format.]**

This appears if the [IP Address] field is not in IPv4 address format or when it is blank when registering camera information. Enter the IP address in IPv4 format in the [IP Address] field.

- **[Enter a number between 0 and 65535 for HTTP Port.]**

This appears if the [HTTP Port] field value is not between 0 and 65535 when registering camera information. Enter a value between 0 and 65535 in the [HTTP Port] field.

- **[Authentication error. RTSP Port query requires administrator privileges. Please configure the RTSP Port manually.]**

This appears when the RTSP port value cannot be acquired automatically from the camera due to an authentication error when registering camera information. Place a check mark in [Manual] and enter the RTSP port value manually.

- **[Unable to connect to the camera. Please check the following settings.]**

- IP Address
- HTTP Port
- User
- Password

Also, if your camera has an SSL communication function, make sure that it is set to allow non-SSL communication.]

This appears when the RTSP port value cannot be acquired automatically from the camera due to an error, other than an authentication error, when registering camera information. Check that appropriate values have been set for [IP Address], [HTTP Port], [User], and [Password].

If SSL is not enabled on the camera, change the setting to allow non-SSL communication.

- **[Enter a number between 0 and 65535 for RTSP Port.]**

This appears if the [RTSP Port] field value is not between 0 and 65535 when registering camera information. Enter a value between 0 and 65535 in the [RTSP Port] field.

- **[This camera is in use. Do you want to change the settings?]**

This appears if a camera is being used in web conferencing tool when you try to confirm changes made to the camera registration information. To confirm the changes, click the [OK] button. To discard the changes and cancel editing, click the [Cancel] button.

- **[This camera is already registered.]**

This appears if you try to register a camera that is already registered. Either use the registered camera or register a different camera.

- **[Camera Standby. Check camera's settings.]**

This appears if a camera is in standby state when registering camera information. Release the camera from standby state and then register the information.

- **[Unsupported codec. Check camera's settings.]**

This appears if the image codec of the camera is not set to H.264 when registering camera information. Set the image codec of the camera to H.264 and then register the information.

- **[RTSP setting disabled. Check camera's settings.]**

This appears if the RTSP streaming function of the camera is turned off when registering camera information. Turn on the RTSP streaming function and then register the information.

- **[Authentication failed. Check User/Password. Or, all the RTSP sessions of the camera are used.]**

This appears if the RTSP stream reception test failed when registering camera information. Check that appropriate values have been set for [User] and [Password].

If appropriate values have been set, the maximum number of connections supported by the camera may have been exceeded. Disconnect other devices from the camera and then register the information.

- **[Unknown camera. Make sure that the camera you are connecting is a supported model.]**

This appears if you try to register a camera that is not supported by the software. Register a camera supported by the software.

- **[Connection failed. Check camera's condition.]**

This appears if a connection with the camera could not be established when registering camera information. See [“Frequently Asked Questions”](#).

- **[%d cameras (more than maximum number) are detected.]**

This appears if 113 or more cameras were detected in the [Search] window.

* “%d” indicates the number of detected cameras.

Frequently Asked Questions

- **The camera image is not displayed in a web conferencing tool.**

- Check that the settings described in [“Configuring Camera Settings”](#) are set correctly on the camera.
- Check that another logged-in user on the same computer is not using the same camera.
- The same camera cannot be used with multiple web conferencing tools simultaneously on the same computer. To use a camera that is currently being used by another web conferencing tool, first change the camera settings in the other web conferencing tool.
- If the camera is being accessed from multiple computers, the camera will not be accessible if the maximum number of simultaneous connections is exceeded.
- The web conferencing tool may not be compatible with the software. If the web conferencing tool has a dedicated application and a web browser version, try both.

- **The camera image does not move smoothly. Or there is a delay in the image.**

Use a computer equipped with a higher-performance CPU and check the operation.

Reduce the image size, frame rate, and bit rate of the H.264 stream on the camera.

If using multiple camera images simultaneously, reduce the number of cameras being used.

If the web conferencing tool has a hardware-acceleration setting, try enabling it and disabling it.

- **There is not audio output from the camera.**

Audio is not output when a microphone is not connected to the camera and when sending of audio is not enabled in the camera settings. Also, audio is not output when not using video in a web conferencing tool.

- **“Sony Camera 1 (Virtual Webcam)” to “Sony Camera 5 (Virtual Webcam)” are displayed in the camera list of other applications even though cameras are not registered in this software.**

When the software is installed, “Sony Camera 1 (Virtual Webcam)” to “Sony Camera 5 (Virtual Webcam)” are always displayed as selection options even if cameras are not registered.

- **Are administrator privileges required to access cameras?**

This software can use cameras without camera administrator privileges. However, administrator privileges are required to change the settings on the camera for use with this software.

To change camera settings, access the camera from a web browser.

- **Can I connect to third-party devices using this software?**

Third-party devices are not supported. Only Sony cameras listed in [“Operating Environment”](#) can be used with this software.

- **Why do the images of “Sony Camera 1 (Virtual Webcam)” to “Sony Camera 5 (Virtual Webcam)” appear inverted when viewed with a web conferencing tool when the camera is not connected?**

This is dependent on the settings of the web conferencing tool. Images transmitted by this software are not inverted.

- **How can I discard the user name and password of a camera registered in this software?**

Delete the configuration file saved by the software. The file is not deleted if the software is uninstalled.

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- johnboiles/coremediaio-dal-minimal-example

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