

SONY®

CLOUD-BASED WIRELESS SERVICE

XDCAM air

SETUP GUIDE

English

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Overview

This guide describes the required setup to use XDCAM air. Read this guide in conjunction with the operating instructions of the other related devices, as required.

Conventions used in this document

PWS-100RX1/110RX1/110RX1A are collectively referred to as an RX device.

Connection Control Manager is referred to as CCM.

Related documents

- Camera Connect Support Network Connection Guide

Setup Flow

Perform setup in the following sequence to use this system.

1 Register users and groups.

Register users and groups using IDM (Sony Professional ID Management).

For details about registration, refer to the Help Guide of IDM.

2 Configure groups and users.

Determine the projects and work groups to which the users registered in step 1 belong. Also, specify the role for the users in each project/work group.

For details, see *“Registering Projects/Work Groups and Configuring Users” (page 5)*.

The user configured with the system administrator (App Admin) role should perform the following setup.

3 Register users for devices.

Register the users for authentication used when connecting stream transmitter and receiver devices to XDCAM air.

For details, see *“Registering Users for Devices” (page 6)*.

4 Register stream transmitters (TX).

Register stream transmitters (camcorders with a CBK-WA100/101 Wireless Adapter attached, camcorders with wireless function, and XDCAM pocket) in XDCAM air. For details, see *“Registering a Stream Transmitter (TX)” (page 7)*.

The procedure on the camcorder and XDCAM pocket are different. For XDCAM pocket, skip to step 7.

5 Configure and register stream receivers (RX).

① Configure the broadcasting station network settings.

- Configure network
- Open ports
- Forward ports (NAPT)
- Configure tenant

② Configure RX device.

- Connect device wiring
- Set language
- Set IP addresses
- Change password
- Run Windows Update
- Update Google Chrome

③ Update RX device.

- Update RX application and CCM
- Install intercom driver

④ Register RX device in XDCAM air.

- Set up XDCAM air
- Register and configure RX devices
- Initialization Tool > Settings

⑤ Check network connection.

- Initialization Tool > Diagnosis
- Initialization Tool > Port Check
- PWS-100/110 Maintenance Web Application

⑥ Test operation.

- Register TX connection
- Check TX streaming operation
- Check multi point distribution operation
- Check intercom operation

For details, see “*Registering and Configuring a Stream Receiver (RX)*” (page 8).

6 Register a Newsroom Computer System (NRCS).

If operating when connected to an NRCS, register the NRCS in XDCAM air.

Map the shooting plan information received from the NRCS with the planning metadata sent to the camcorder and the wireless adapter.

For details, see “*Registering a Newsroom Computer System (NRCS)*” (page 14).

7 Configure camcorders, wireless adapter, and XDCAM pocket.

Configure the settings on each camcorder, wireless adapter, and XDCAM pocket for connection with XDCAM air.

For details, refer to the instruction manual for each device.

8 Configure stream receivers.

Install and configure Streaming Receiver App software (RX1 Streaming Receiver) for connection with XDCAM air on the PWS-100RX1, PWS-110RX1, or PWS-110RX1A. For details, refer to the PWS-100RX1, PWS-110RX1, or PWS-110RX1A Installation Guide.

9 Configure PWA-NRCS01 NRCS Gateway App for XDCAM air software.

Install and configure NRCS Gateway Server App software for sending and receiving data between XDCAM air and the NRCS.

For details, refer to the PWA-NRCS01 Installation Guide.

10 Configure system settings.

Configure the XDCAM air application preferences, output destination selection when using Auto Assign, and server settings for uploading content.

For details, see “*Configuring System Settings*” (page 16).

11 Configure intercom settings.

Link the stream receiver channel used for communication with the camcorder.

For details, see “*Configuring System Settings*” (page 16).

12 Configure ingest server settings.

Configure settings for ingesting proxy files into XDCAM air.

For details, see “*Configuring an Ingest Server*” (page 18).

13 Configure the metadata.

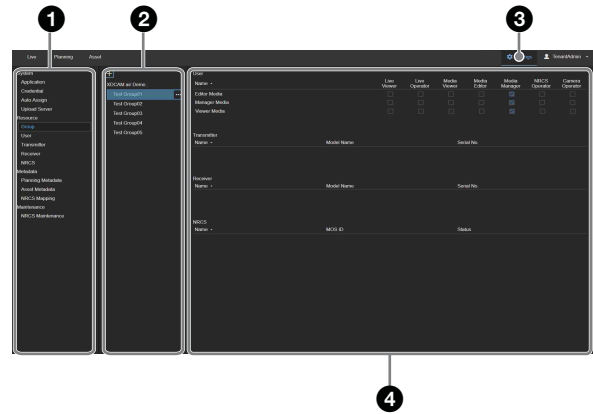
Configure the metadata to display on the Asset screen.

For details, see “*Configuring Metadata*” (page 17).

Structure of the Settings Screen

This section describes the basic structure of the XDCAM air Settings screen.

The Settings screen is displayed after a system administrator signs in and clicks the [Settings] button.



1 Menu

Selects the menu with items to configure.

2 Sub menu

Selects the item to configure in the selected menu. The sub menu may not be displayed, depending on the selected menu.

3 Settings button

Click to display the Settings screen.

4 Settings area

Displays the configuration items.

The structure of the [Settings] menu is given below.

| | |
|-----------------|--|
| System | |
| General | Set time zone, drag & drop action, operation priority, and forced streaming. |
| Credential | Register the user name and password for the connection of a device with XDCAM air. |
| Auto Assign | Automatically assigns the ports that XDCAM pocket can connect to. |
| Upload | Configure settings for uploading content to a server. |
| Intercom | Link the PWS-100RX1 with the camcorder to communicate with using the intercom. |
| Asset Retention | Configure auto deletion of assets. |
| Resource | |
| Group | Use to add, edit, and delete projects and work groups. Also displays the resources assigned to projects and work groups. |
| User | Configure projects and work groups to which users belong and the role of each user. |
| Transmitter | Register, modify, and delete stream transmitters. |
| Receiver | Register, modify, and delete stream receivers. |
| NRCS | Register, modify, and delete a Newsroom Computer System (NRCS). |
| FTP Server | Configure settings for transferring assets to an external remote server. |
| S3 Bucket | Configure settings for transferring assets to an external S3 bucket. |

| | |
|---------------------|--|
| Ingest Server | Configure settings for ingesting assets into XDCAM air. |
| Watermark Preset | Configure settings for the watermark to insert in files and stream for SNS casting. |
| Transmitter Setting | |
| Backup / Restore | Back up/restore camcorder settings. |
| Metadata | |
| Planning Metadata | Use to add, edit, and delete planning metadata items for NRCS Mapping. |
| Asset Metadata | Use to add, edit, and delete metadata items defined for asset metadata schema (Planning Schema). |
| NRCS Mapping | Configure the mapping between the NRCS shooting plan information and planning metadata. |
| Maintenance | |
| Camera All File | Delete camcorder configuration file (All File) saved using [Backup/Restore]. |
| Planning Metadata | Specify the number of days to retain shooting plans. Shooting plans are automatically deleted after the retention time elapses. You can also manually delete shooting plans that are no longer required. |
| Dashboard | Check the status of data usage and licenses. |

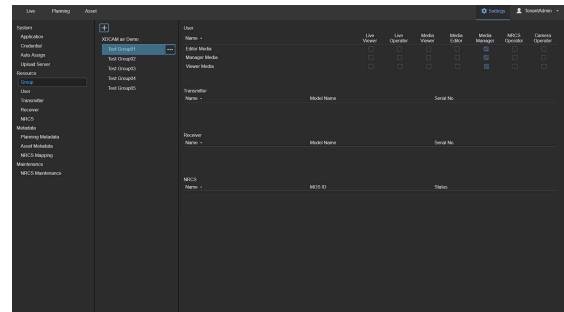
Note

For details about [Backup/Restore] and [Dashboard], refer to the Help Guide.

Registering Projects/ Work Groups and Configuring Users

Use the following procedure to register projects and work groups, and configure the projects and work groups to which users belong and the role for each user.

1 Select [Resource] – [Group] from the [Settings] menu.



The registered projects and work groups are displayed in the pane on the left in tree view. Selecting a project/work group displays the transmitters, receivers, NRCS systems, and users (collectively referred to as “resources”) assigned to that project/work group. Work groups can be created within projects. Users belonging to a project can use the resources within a project, but they cannot use the resources of work groups within the project. Users belonging to a work group can use the resources of that work group and the resources of the parent project.

2 Click the [+] button.

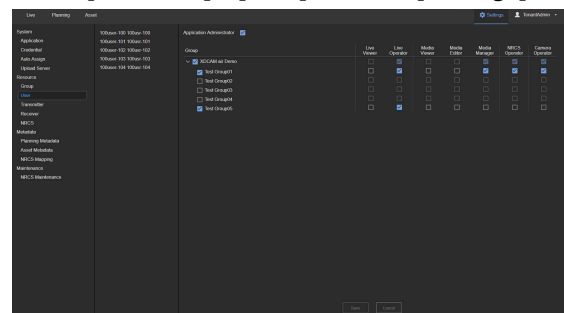
A dialog for adding a project appears.

3 Enter a name, and click the [Save] button.

4 Select the added project in the sub menu, and select [Add Work Group] from the displayed menu to add a work group.

You can also edit and delete an added project or work group from the menu.

5 Select [Resource] – [User] from the [Settings] menu.



6 Select the user you want to configure from the user list on the left.

- 7** Check the [Application Administrator] checkbox if you want to grant permission to configure application settings.

Note

Users with [Application Administrator] checked can configure all groups, users, and devices, regardless of the group to which they belong. They can also execute [Transmitter Setting] – [Backup / Restore].

- 8** Place a check mark in the checkboxes for the projects/work groups to which the user will belong, and the checkboxes for the roles to grant the user within those projects/work groups.

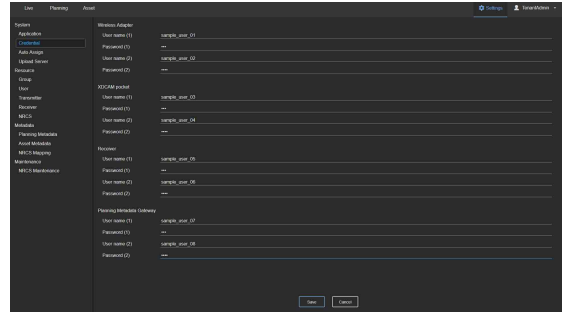
The following roles can be selected.

- Live Viewer: Permission to view the Streaming screen. Live Viewer and Live Operator cannot both be selected.
- Live Operator: Permission to operate the Streaming screen, including Live viewing. Live Viewer and Live Operator cannot both be selected.
- Media Viewer: Permission to preview media and download content. Media Viewer, Media Editor, or Media Manager role can be selected. Multiple selections are not supported.
- Media Editor: Permission to edit media. You can delete, move, and edit metadata for assets that belong to you, and upload from the GUI. Media Viewer, Media Editor, or Media Manager role can be selected. Multiple selections are not supported.
- Media Manager: Permission to manage media. You can also delete, move, and edit metadata for assets that do not belong to you, and upload from the GUI. Media Viewer, Media Editor, or Media Manager role can be selected. Multiple selections are not supported.
- NRCS Operator: Permission to operate the NRCS screen. Buttons for displaying the NRCS screen are not displayed if this role is not selected.
- Camera Operator: Permission to send assigned planning metadata to a transmitter from a mobile device GUI. Also, permission to back up and restore user preferences from a mobile device by executing [Transmitter Setting] – [Backup / Restore].

- 9** When finished, click the [Save] button.

Registering Users for Devices

- 1** Select [System] – [Credentials] from the [Settings] menu.



- 2** Enter the user name and password used for authentication of the camcorder, the Wireless Adapter, XDCAM pocket, Receiver, and Planning Metadata Gateway.

Two users can be configured for each.

- 3** Click the [Save] button.

Registering a Stream Transmitter (TX)

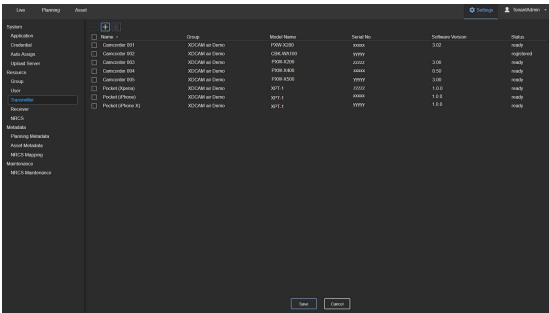
Register camcorders with a CBK-WA100/101 Wireless Adapter attached, camcorders with wireless function, and XDCAM pocket that will transmit a stream in XDCAM air, and configure the user name and password used for authentication.

Note

For XDCAM pocket, first configure XDCAM pocket for connection with XDCAM air, and then connect to XDCAM air. The connected XDCAM pocket is displayed on the screen, and Status changes to “pending.” Change Status to “registered,” and click the [Save] button. The XDCAM pocket name that is displayed is the setting configured in XDCAM pocket, not the XDCAM air setting.

1 Select [Resource] – [Transmitter] from the [Settings] menu.

A list of transmitters is displayed.



2 Click the [+] button.

An item is added to the bottom of the list.

3 Configure the transmitter.


Enter or select settings in the list.

- Name: Enter a name used to identify the transmitter.
- Group: Select a group.
- Model Name: Select the model name of the transmitter. You can enter a name directly if the model does not appear in the drop-down list.
- Serial No.: Associate a serial number with the transmitter.
- Soft Version: Displays the software version of the transmitter.
- Metadata: Place a check mark here to send shooting plans received from NRCS to a camcorder.
- HEVC: Place a check mark here to stream using the H.265/HEVC codec.
- Status: Select “registered” or “pending.” When the connection with a registered transmitter is established, Status changes to “ready.”

Notes

- Separate licenses are required to use the Metadata and HEVC functions.
- The Metadata and HEVC license checkboxes are displayed only on supported models.
- The Metadata and HEVC licenses become enabled once the corresponding function is used for the first time. Once enabled, the license cannot be transferred.

4 Repeat steps 2 and 3 if you want to register other transmitters.

To copy information from another entered transmitter, place a check mark in the row for the transmitter you want to copy, click the  button, and select [Copy & Paste].

5 When finished entering all transmitters, click the [Save] button.

The transmitters entered in the list are registered.

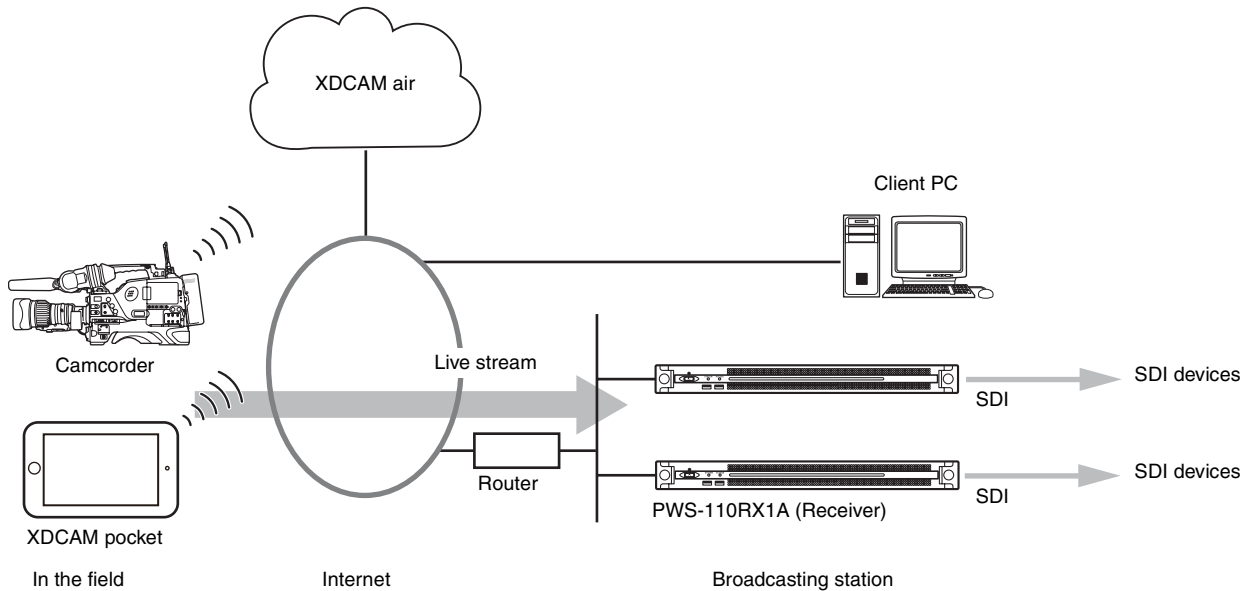
Registering and Configuring a Stream Receiver (RX)

Configuring the broadcasting station network settings

Before setting up an RX device, the broadcasting station network must be configured and a record made of the settings for use when configuring the RX device.

Configure network

This is a system configuration that receives streaming video using a streaming receiver (RX), where the connection is managed by the XDCAM air service.



Open ports

Main ports used

- XDCAM air to TX control: TCP 8443
- RX to XDCAM air: TCP 9083
- TX to RX streaming: 20 consecutive UDP ports per RX device

Description of used ports

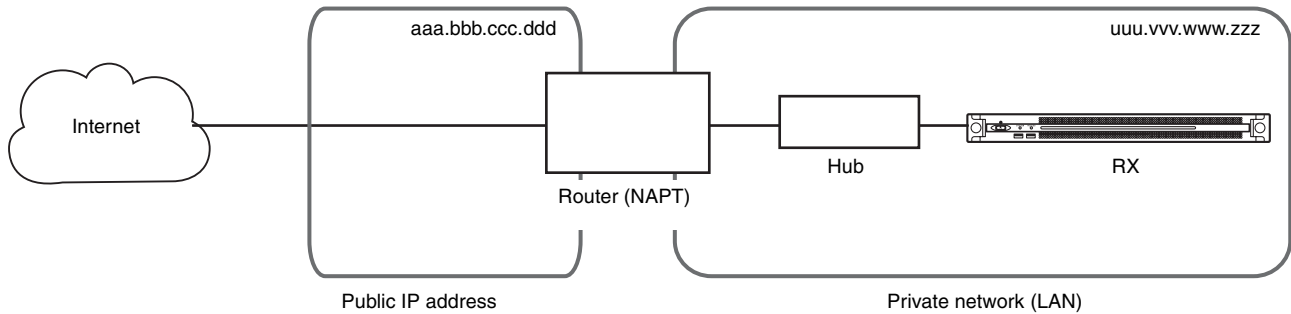
Change the settings of the broadcasting station router, and open the following ports for inbound (download) or outbound (upload) traffic. Inbound traffic is from the Internet to an RX device, and outbound traffic is from an RX device to the Internet.

| Ports | Type | Direction | Application | XDCAM air | Note |
|-------------------------------|------|-----------|--|-----------|--|
| 8443 | TCP | Inbound | TX - CCM control connection Camcorder, WA and XDCAM pocket | Optional | Required if you want to build a standalone configuration as a backup. |
| 10000 to 10019 (Arbitrary) | UDP | Inbound | TX - RX Streaming connection | Required | You can use any range of 20 consecutive UDP ports per RX device. |
| 9083 | TCP | Outbound | CCM - RX Control connection | Required | |
| 9084 | TCP | Outbound | Initialization Tool - Test Server Port Check | Optional | Required if you want to run the port check tool to configure network settings. |
| 11500 | TCP | Outbound | RX - XDCAM air Intercom, XDCAM pocket | Required | |
| 443 | TCP | Outbound | XDCAM air multi point distribution (MPD) and web UI (https) | Required | |

Port forwarding (NAPT) from WAN to LAN

The inbound ports in the previous table must be configured for port forwarding (NAPT) on the broadcasting station router. Make a note of these settings, as they will be required when configuring the RX device environment. Operation using fixed IP addresses is recommended.

Network topology diagram on broadcasting station side



NAPT table

| WAN IP address | WAN port | TCP/UDP | | LAN IP address | LAN port |
|--------------------------------------|------------------------|---------|---|--------------------------------|---|
| aaa.bbb.ccc.ddd (Provided by ISP) | 10000 to 10019 (fixed) | UDP | → | uuu.vvv.www.zzz (arbitrary) | 10000 to 10019 (same as WAN) |
| | | | | | Note For each connected RX receiver, 20 ports are required. |

Required network information

| Item | Value (example) | Applicable location |
|-----------------------|-------------------------------------|---|
| Public IP Address | aaa.bbb.ccc.ddd | Register RX > External Host Name Initialization Tool > Port Check |
| External 20 UDP ports | XXXXX (+20) | Register RX > External Port Range Initialization Tool > Port Check |
| Local IP Address | uuu.vvv.www.zzz (see diagram above) | RX network settings |
| Subnet Mask | 255.255.255.0 | RX network settings |
| Default Gateway | uuu.vvv.www.1 | RX network settings |
| Preferred DNS Server | | RX network settings |
| Alternate DNS Server | | RX network settings |

Required bandwidth

The network connection requires the following inbound (download) and outbound (upload) bandwidth per RX device.

| | | |
|--------------------------|--------------------------|-----------------------|
| Total inbound bandwidth | 25 Mbps | |
| Components | Streaming | 12 Mbps × 2 = 24 Mbps |
| | Control | 1 Mbps |
| Total outbound bandwidth | 26 Mbps | |
| Components | Multi point distribution | 12 Mbps × 2 = 24 Mbps |
| | Preview | 1 Mbps |
| | Control and thumbnail | 1 Mbps |

This allows two simultaneous streams to be received and played back at the highest quality level. Lower bandwidth connections will also work.

Configuring XDCAM air tenant

The information provided to the tenant administrator after the contract is established is required when setting up an RX device.

| Item | Endpoint URL:port* | Application |
|--------|--|------------------------------------|
| Web UI | https://apps.us1.xdcam-air.com:443 https://apps.eu1.xdcam-air.com:443 | Web browser access to XDCAM air UI |

| Item | Endpoint URL:port* | Application |
|---------------|--|--|
| TX connection | txcp.us1.xdcam-air.com:8443 txcp.eu1.xdcam-air.com:8443 | Setting for connection to XDCAM air service on the transmitter |
| RX connection | nrxc.us1.xdcam-air.com:9083 nrxc.eu1.xdcam-air.com:9083 | Initialization Tool > Settings (CCM Address, CCM Port) |

* Top line: US region. Bottom line: Europe region

Configuring an RX device

The description below describes typical settings in Windows OS.

Connect device wiring

- 1** Connect the power cord to a power outlet.
- 2** Connect a keyboard and mouse to the USB connectors on the front panel of the RX device, and connect a monitor to the HDMI connector on the rear panel.
- 3** Connect a LAN cable to the LAN1 connector to connect to the broadcasting station network.
- 4** Connect an SDI device to the SDI connector.
- 5** Input a sync reference signal on the REF IN connector.
- 6** Connect a USB audio interface to a USB connector on the front or rear panel of the receiver.
- 7** Press and hold the On/Standby button to turn the unit on.
- 8** When the Windows sign-in screen appears, enter the user name and password to sign in.
The factory default user name is "rx1" and the default password is "rx1".

Set language

- 1** Hold down the Windows key and press the X key, then select [Control Panel] from the displayed menu.
- 2** Select [Clock, Language, and Region] > [Language].
- 3** Select [Add language] to add a language.
- 4** Select the language to add, then click [Add].
- 5** Select the language to use and click [Move up] until the language is displayed at the top.
- 6** Sign out and then sign in again.

Set IP addresses

Prepare an IP address for each RX device. For values that can be set for these items, check beforehand with your IT administrator.

- 1** Click [View network status and tasks] under [Network and Internet] in the control panel.

- 2** Click the device connected by the LAN cable in [Connections].
- 3** Click the [Properties] button.
- 4** Select [Internet Protocol Version 4 (TCP/IPv4)], then click the [Properties] button.
- 5** Change the IP address, subnet mask, and default gateway settings.
An IP address can be dynamically obtained from a DHCP server, but use of a fixed IP address is recommended.
- 6** Click the [Advanced] button to configure DNS and other settings.
- 7** When finished, click the [OK] button.

Set date & time

By default, Time zone is set to UTC, but this must be configured correctly for the usage environment.

- 1** Select [Set the time and date] under [Date and Time] in the [Clock, Language, and Region] control panel.
- 2** Click [Change time zone] on the [Date and Time] tab, and select the time zone.
- 3** Click [Change date and time] on the [Date and Time] tab, and set the date and time.
- 4** Click the [Change settings] button on the [Internet Time] tab.
- 5** Specify an NTP server, then click the [Update Now] button.
- 6** Place a check mark in [Synchronize with an Internet time server] to periodically correct the clock using the NTP server.

Change password

The password must be changed after logging in for the first time. Follow the on-screen instructions to set a new password.

Run Windows Update

Manual checking of updates for Windows is recommended for stable live operation. Periodically run Windows Update to maintain security.

Note

It may take several hours when updating Windows for the first time.

PWS-110RX1/100RX1

- 1 Hold down the [Windows logo] key and press the [X] key on the keyboard.
- 2 From the displayed Quick Access menu, select [Control Panel].
- 3 Click [System and Security], then click [Windows Update].
- 4 Click [Let me choose my settings], select the following, then click [OK].
Important updates: “Never check for updates (not recommended)”
Recommended updates: Uncheck
- 5 Click [Check for Updates].
You may need to wait for a while.
- 6 Install important updates only. Click [Install updates].
- 7 Click [Restart now].
- 8 After Windows restarts, open [Windows Update] then click [Check for Updates] again.
- 9 Install optional updates. Click [Install updates].

PWS-110RX1A

- 1 Hold down the [Windows logo] key and press the [i] key on the keyboard.
- 2 From the displayed Windows Settings menu, select [Update & security].
- 3 Click [Windows Update] from the menu on the left.
- 4 Click the [Check for updates] button.

Update Google Chrome

- 1 Select [Help] – [About Google Chrome...].
- 2 Restart Chrome.

Updating an RX device

Updating the RX application and CCM

Check the versions of the RX application and CCM software, and update the software using the URLs in the following table. For details about updating, refer to the “Software Update Guide” for the RX device model.

Note

For details about updating, refer to the release notes for the RX device.

| Version | Update method | URL |
|-----------------|---|-----|
| Prior to v1.6.1 | Contact your Sony service representative. | — |

| Version | Update method | URL |
|----------------|---|---------------------|
| 1.6.1 to 1.6.3 | Update to RX1 V1.11.0 or later | Sony Global website |
| 1.7.0 to 1.8.0 | Update to RX1 V1.9.0, then update to V1.11.0 or later | |
| 1.9.0 | Update to RX1 V1.11.0 or later | |

Downloading software from the Sony Global website

- 1 Access “https://pro.sony/” in a web browser.
- 2 Select your country of residence from [Change Country, Region or Language].
- 3 Click the magnifying glass icon, enter the “PWS-110RX1” product name to search, and display the PWS-110RX1 product page.
- 4 Scroll down the page, and download the required software from [Resources and downloads].

Installing a USB audio interface driver for intercom connection

The following intercoms are supported.

- M-Track 2x2M
 - KOMplete AUDIO 6
- Install drivers as required.

Note

Obtain drivers from the product web site for each product.

For details about connecting and configuring the intercom, refer to the Update Manual.

Registering an RX device in XDCAM air

Registering and configuring an RX device

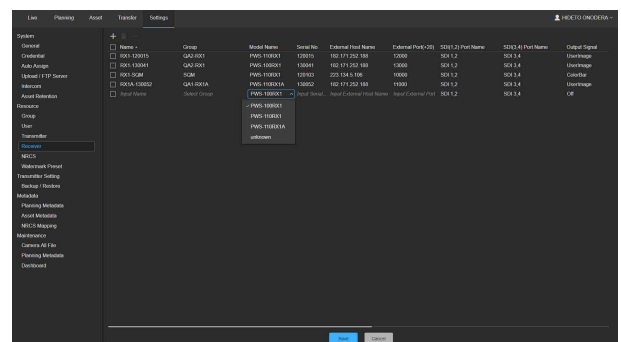
Registering an RX device in XDCAM air

Note

If RX1 device downgrade is required due to RX device replacement or other reason, first delete the registered RX device.

- 1 Select [Resource] – [Receiver] from the [Settings] menu.

A list of receivers is displayed.



2 Click the [+] button.
An item is added to the bottom of the list.

3 Configure the receiver.
Enter or select settings in the list.

Note

Items marked with an asterisk will cause an RX device to not operate correctly if incorrect information is configured.

| | |
|----------------------|---|
| Name | Enter a name used to identify the receiver. |
| Group | Select a group. |
| Model Name* | Select the model name of the receiver. The model name is printed on the top panel of the PWS-100/110. |
| Serial No.* | Associate a serial number with the receiver. Confirm on the PWS-100/110 Maintenance Web Application [Diagnosis] page. |
| External Host Name* | Enter the IP address or the hostname for accessing the receiver from the Internet. Enter the value of "Public IP Address" shown in "Required network information" (page 9). |
| External Port Range* | Enter the number of the first UDP port used for receiving streaming content from the Internet. Enter the value of "External 20 UDP ports" shown in "Required network information" (page 9). |
| Resolution | Select the output picture resolution. |
| Frame Rate | Select the output picture frame rate. |
| Ref Lock | Select the external sync signal used to lock the SDI output. |
| Output | Displays the lock status of the SDI output with respect to an external sync signal. |
| SDI Port name | SDI 1/2 and 3/4 port can be renamed. |
| Output Signal | Select the picture that is output when streaming is stopped. |

4 When finished entering all receivers, click the [Save] button.

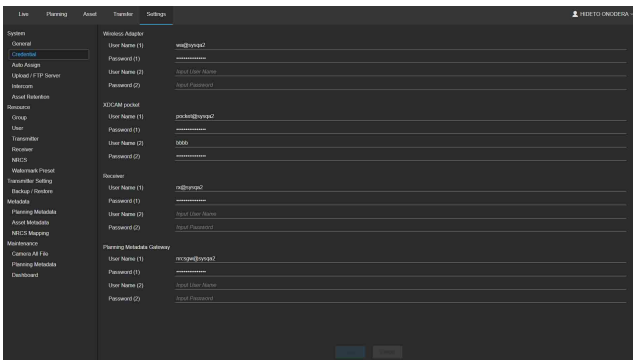
The receivers entered in the list are registered.

Checking the user and password

Check the user name and password required for when connecting to XDCAM air on the [System] – [Credential] page.

Note

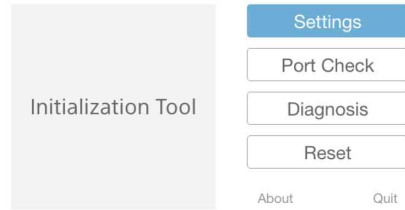
The password is displayed as asterisks on this page.



Initialization Tool > Settings

The Initialization Tool application installed in an RX device has the following fundamental and useful features.

- Settings: Use to connect RX device to CCM (XDCAM air or RX1 standalone).
- Port Check: Use to check the status of port forwarding from the Internet to the local RX device, using a test server.
- Diagnosis: Use to check the health status of the software running on the RX device.
- Reset: Use to reset the connection setting when an RX device becomes unstable.



Starting the Initialization Tool

Click the [Initialization Tool] icon on the Start screen. The "End User License Agreement" appears the first time you launch the Initialization Tool. Check and accept the terms of the agreement to use it. Click [Accept].

Configuration

Register the device in the system using the Initialization Tool. This operation is required for all devices configured to receive streaming content.

1 Click [Settings].

2 Enter the connection settings for XDCAM air.

- CCM Address: Enter the hostname (FQDN).
- CCM Port: Enter the TCP port number "9083" used to communicate with XDCAM air.
- User Name: Enter the user name.
- Password: Enter the password.



3 Click [Next].

4 Enter optional settings. (This step can be set later.)

- Use an image file for SDI outputs: Place a check mark here when outputting a still image to the SDI output while streaming is stopped. To use an image file, specify the path to the file (1920x1080 resolution JPEG or BMP image) in [File].
- Enable Intercom function: Place a check mark here when using a receiver with an intercom function.

Settings: Page 2/2

Use an image file for SDI outputs

File:

Enable Intercom function

< Back Start >

5 Click [Start].

6 When the result is displayed, click [Quit].

Result:

```
GetSerialNo : Success.
SettingConfig : Success.
MSQ Check : Success.
Connect to CCM (qa3-nrx.jp1.xair-ales.com) : Success.
RxStreamManagerService Start : Success.
RaFileCleanerService Start : Success.
IntercomService Start : Success.
RxSystemMonitorService Start : Success.
```

Home Quit

1 Launch the Initialization Tool.

2 Click [Diagnosis].

Result:

```
● MSQ SDI Board: Working
● Streaming Receiver Service: Running
● Intercom Service: Running
```

Home Quit

Initialization Tool > Port Check

Check that you can access the receiver ports from outside the router.

1 Click [Port Check]

2 Enter the address and port for the unit.

- CCM: Clear the check mark.
- RX: Add a check mark.
- RX/Host Name: Enter the hostname (FQDN).
- RX/UDP Port: Enter the UDP port number to use for streaming.

3 Click [Start]

Port Check PASS

CCM: a.com

8445 8446

RX: a.com

15000 15001 15002 15003 15004 15005 15006 15007 15008 15009

15010 15011 15012 15013 15014 15015 15016 15017 15018 15019

< Back Reload Home

Troubleshooting

| Type | Message | Solution |
|-----------------------------|--|--|
| XDCAM air setting | Connection failed: 403 Forbidden. Please Check CCM Access Setting. | The receiver settings of XDCAM air are wrong. Check [Settings] > [Receiver] > [Model Name] and [Serial No.]. |
| Initialization Tool setting | Connection failed: 401 Unauthorized. Please Check User Name and Password. | The user name and password do not match the XDCAM air settings. Check [Settings] > [Credential] > [Receiver] > [User Name (1)], [Password (1)], [User Name (2)], and [Password (2)]. |
| Initialization Tool setting | Connection failed: WinHttpRequest: 12002: The operation timed out | Check the following. <ul style="list-style-type: none"> • Set the correct endpoint URL for the CCM address. • Set the CCM port value to 9083. |
| Network configuration | DNS resolution error. Please confirm DNS settings on Windows. | See <i>"Set IP addresses"</i> (page 10). |
| Initialization Tool | Could not resolve host name. Please confirm the "HOSTNAME (input value)" is correct. | Check that the RX/Host Name value of the Initialization Tool is correct. |
| Network configuration | Could not connect to the test server. Please confirm your router settings to be opened TCP 9084 port for outbound traffic. | Refer to <i>"Description of used ports"</i> (page 8) and open a required port. |

PWS-100/110 Maintenance Web Application

Display the Diagnosis screen and check that no errors have occurred. Next, check the serial number.

Checking the network connection

Initialization Tool > Diagnosis

Check that each service is operating normally.

Testing operation

1 Connect a camcorder or wireless adapter to XDCAM air.

Note

A camera license is required.

2 Connect XDCAM pocket to XDCAM air.**Note**

An XDCAM pocket license is required.

3 Check the streaming operation.

Start streaming from a registered TX device to RX as main output.

- Streaming video and audio output from RX SDI1&2 port is normal.
- Streaming video and audio output from RX SDI3&4 port is normal.

Test viewpoint

- Streaming receiver connection utilizes TCP 9083 port for outbound traffic.
- Streaming signal utilizes UDP ports registered in [External Port Range] for inbound traffic.

4 Check multi point distribution operation.

Start streaming from a registered TX device to RX SDI1&2 as main output and SDI 3&4 as Sub output.

- Streaming video and audio output from RX SDI1&2 port is normal.
- Streaming video and audio output from RX SDI3&4 port is normal.

Test viewpoint

RX to XDCAM air (MPD upstream) connection utilizes TCP 443 port for outbound traffic.

Note

Sub output (MPD streaming) has a delay of approximately 30 seconds relative to the main output.

5 Check intercom operation.

Start intercom operation between the camcorder and streaming receiver.

- Intercom upstream and downstream audio are normal.

Test viewpoint

- Audio interface driver was correctly installed on the streaming receiver.
- Intercom stream (RX to TX) utilizes TCP 11500 port for outbound traffic.

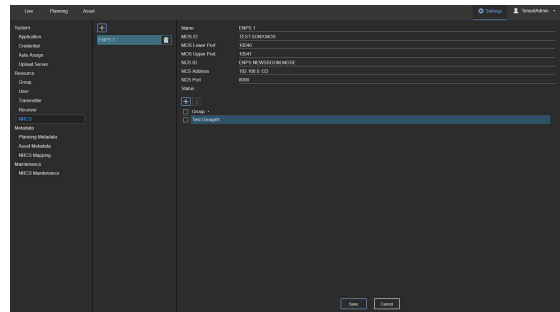
Note

The intercom settings must be configured as described in step 4 of “Configuring System Settings” (page 16) before checking the intercom.

Registering a Newsroom Computer System (NRCS)

Register a Newsroom Computer System (NRCS) for connection with XDCAM air via NRCS Gateway Server App, and configure the mapping between the NRCS shooting plan information and planning metadata.

NRCS Operator and Application Administrator roles are required to perform the following setup.

1 Select [Resource] – [NRCS] from the [Settings] menu.
A list of NRCS systems is displayed in the pane on the left.**2 Click the [+] button.**

A dialog appears. The name entered in the dialog is registered and added to the list.

3 Configure the NRCS settings.

Enter or select settings in the list.

- Name: Enter a name used to identify the NRCS.
- MOS ID: Enter the ID of the Media Object Server (MOS).
- MOS Upper Port: Enter the upper port of the MOS.
- MOS Lower Port: Enter the lower port of the MOS.
- NCS Product: Select the product name of the NRCS.
- NCS ID: Enter the ID of the NRCS.
- NCS Address: Enter the address of the NRCS.
- NCS Port: Enter the port used by the NRCS.
- Group: Click the [+] button to add an entry to the list, and select a group from the pull-down list. To delete an added group, place a check mark in the checkbox, and click the trash button.

Note

MOS ID and NCS ID are used for communication with NRCS. Set the values to match the NRCS settings.

4 Click the [Save] button.**5 Repeat steps 2, 3, and 4 if you want to register other NRCS systems.****6 Select [Metadata] – [Planning Metadata] from the [Settings] menu.**

The [Planning Metadata] screen appears.

7 Select [Original] or [Custom] for the title specification method.

When [Custom] is selected, configure the title using keys added in step 9. You can customize the title using multiple keys.

Notes

- Specifying a fixed character string will set that character string as the title of the planning metadata.
- The first 44 bytes of the title are valid, depending on the camcorder model. Non-supported characters are replaced by an underscore (_) character.

8 Click the [+] button.

An item is added to the bottom of the list.

9 Register the planning metadata.

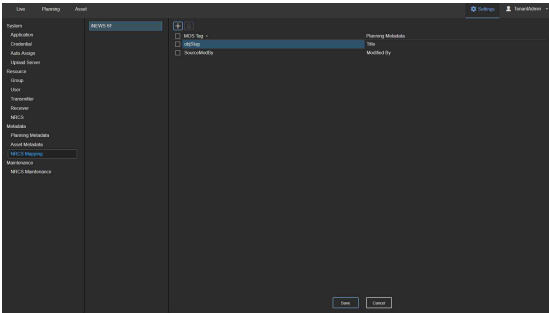
- Key: Enter keys for planning metadata in XDCAM air.
- Display Name: Enter the name to display in XDCAM air.

10 To delete added metadata, place a check mark in the checkbox for the metadata to delete, and click the trash button.

11 Click the [Save] button.

12 Select [Metadata] – [NRCS Mapping] from the [Settings] menu.

The [NRCS Mapping] screen appears.



13 Select the NRCS for which to set metadata from the NRCS list in the sub menu.

Information for the selected NRCS is displayed.

14 Map the planning metadata with the NRCS shooting plan.

Select the MOS message tag corresponding to each item name in the planning metadata.

Select an item name from the drop-down list in the [Planning Metadata] column to add a user-defined item.

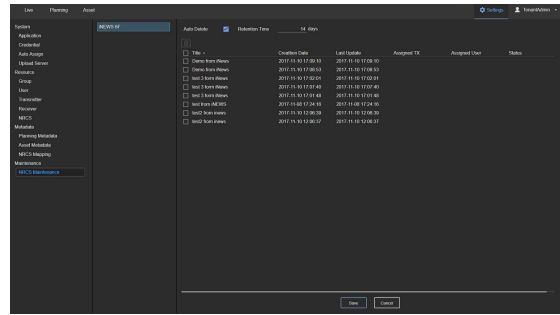
Notes

- To edit a MOS message tag, select [Edit MOS Tag] displayed at the bottom of the drop-down list.
- If a value containing non-ASCII characters is sent from NRCS to metadata which has ASCII character mapping, the value will not be transferred to the corresponding metadata.

15 To delete added metadata, place a check mark in the checkbox for the metadata to delete, and click the trash button.

16 Click the [Save] button.

17 Select [Maintenance] – [NRCS Maintenance] on the Settings screen.



18 Select the NRCS as described in step 12.

19 Select [Retention Time], and specify the number of days to retain shooting plans.

Specify the number of days of operation beyond which shooting plans are no longer necessary and can be deleted.

20 Click the [Save] button.

Note

Shooting plans that are not required can be deleted manually. Place a check mark beside target shooting plans to delete in the shooting plan list and click the trash button.

Configuring System Settings

Configure the XDCAM air application preferences, output destination selection when using Auto Assign, and server settings for uploading content.

- 1 Select [System] – [Application] from the [Settings] menu.**
The [Application] screen appears.
- 2 Configure settings relating to the XDCAM air application actions.**
 - Drag & Drop Action: Set the action to perform when linking a transmitter with a receiver on the Live screen using drag & drop. Select whether to start streaming or whether to make the transmitter the reserve.
 - Operation Priority: Select [Last Win] and drag & drop a transmitter to a receiver while streaming to stop the current streaming execution and receive the stream from the dropped transmitter. If [First Win] is selected, drag & drop has no effect.
 - Force Streaming: Add a check mark and assign a transmitter to a receiver using drag & drop while pressing the Alt key to start forced streaming regardless of the Operation Priority setting.
 - History Retention Time: Set the number of days for retaining the streaming history.
- 3 Click the [Save] button.**
- 4 Select [System] – [Intercom] from the [Settings] menu.**
The [Intercom] screen appears. Select the PWS-100RX1 channel used for communication for each camcorder.
- 5 Select [System] – [Auto Assign] from the [Settings] menu.**
The [Auto Assign] screen appears. Specify the destination SDI port used for streaming from XDCAM pocket on this screen.
- 6 Select the project/work group to configure in the sub menu.**
- 7 Select the SDI output destination.**
- 8 Repeat steps 5 and 6 as required to configure other projects/work groups.**
- 9 When finished configuring Auto Assign settings, click the [Save] button.**
- 10 Select [System] – [Upload] from the [Settings] menu.**
The [Upload] screen appears.
- 11 Place a check mark in the [Use Upload Server] checkbox, and select [XDCAM air] or [FTP Server].**
XDCAM air: Select when using XDCAM air asset management functions.
FTP Server: Select when uploading to an external FTP server.

Note

When [XDCAM air] is selected, configure the following [Upload Server] settings on the camcorder.

- Set [Upload Server] to [NCM: RX Server [CCM]], and [Default Server] to [On].
- Set [Auto upload] to [On].

12 If you select [FTP Server], configure the settings for the FTP server for uploading.

- ① Select [Resource] – [FTP Server].
- ② Click the [+] button.
- ③ Configure the FTP server settings.

Note

If using an FTP over TLS connection, import the certificate provided by the server administrator in [FTPS Server CA Certificate].

- ④ Click the [+] button.
- ⑤ Select a group.

13 Click the [Save] button.

Configuring Metadata

Configure the metadata of the planning schema to display on the Asset screen.

- 1 Select [Metadata] – [Asset Metadata] from the [Settings] menu.**
The [Asset Metadata] screen appears.
- 2 Click the [+] button.**
An item is added to the bottom of the list.
- 3 Configure the metadata settings.**
Enter and select the following items in the list.
 - Display Name
 - Key (key registered on [Metadata] – [Planning] screen)
 - Type
 - Required
 - Editable
 - Sortable
 - Searchable
- 4 Repeat steps 2 and 3 to add further metadata items.**
- 5 When finished specifying all metadata items, click the [Save] button.**

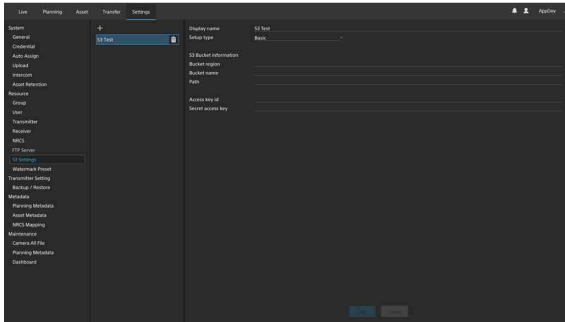
Creating a Watermark

Create a watermark to insert in video that is to be streamed from SNS sites.

- 1 Select [Resource] – [Watermark Preset] from the [Settings] menu.**
The [Watermark Preset] screen appears.
- 2 Click the [+] button.**
The [Watermark Preset] dialog appears.
- 3 Enter a name in [Preset Name], then click the [Browse] button and select an image file.**
Note
PNG files up to 2 MB can be used as a watermark.
- 4 Select one of the four corners of the screen in which to display the watermark in [Position].**
- 5 Click the [Save] button.**
The watermark is added to the list.

Configuring an S3 Bucket

- 1 Select [Resource] – [S3 Bucket] from the [Settings] menu.



- 2 Click the [+] button, and enter the name of the S3 bucket.
- 3 Click the [Save] button.
- 4 Select the added S3 bucket, and configure the settings.
- 5 Click the [Save] button.

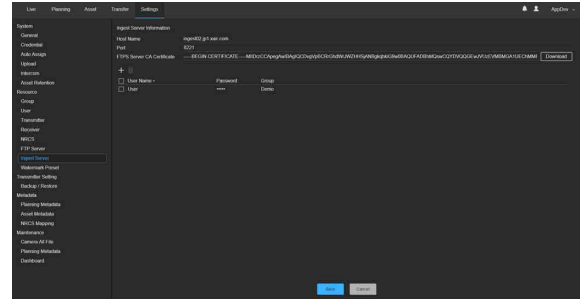
Note

Check the settings with the bucket administrator before configuring an S3 bucket.

Configuring an Ingest Server

- 1 Select [Resource] – [Ingest Server] from the [Settings] menu.

The [Ingest Server Information] pane appears. [Host Name], [Port], and [Certificate] are preconfigured.



- 2 Click the [+] button, and specify the user name, password, and group of the FTP client used for ingesting.

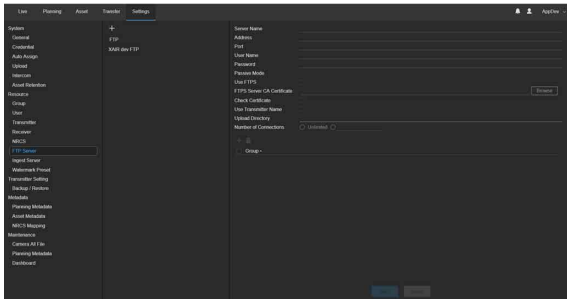
Note

Proxy files ingested using the specified user name and password are ingested into the [Auto Upload] bin.

- 3 Click the [Save] button.
- 4 Click the [Download] button for [FTPS Server CA Certificate], and download a certificate.
- 5 Register the downloaded certificate in the FTP client.

Configuring an FTP Server

- 1 Select [Resource] – [FTP Server] from the [Settings] menu.



- 2 Click the [+] button, and enter the name of the FTP server to be added.

- 3 Click the [Save] button.

- 4 Select the added FTP server, and configure the following settings.

- Address
- Port
- User name
- Password
- Passive mode
- Use FTPS
- Server CA certificate
- Check certificate
- Use transmitter name
- Upload directory
- Number of connections

Notes

- When a check mark is placed in [Use Transmitter Name], a folder with the TX name is created in the upload directory. If the [Upload Directory] field is blank, the folder is created in the root directory.
- If a directory is specified in [Upload Directory], the specified folder is created in the root directory.
- In [Number of Connections], specify the maximum number of connections for when transferring files from XDCAM air.

- 5 In the FTP server settings for transferring files from a camcorder, configure the following settings.

- User Transmitter Name
- Upload Directory

- 6 Click the [+] button under the FTP settings, and add a group that will use the configured FTP server.

Note

Up to four FTP servers can be used per group.

- 7 Click the [Save] button.

Licenses

Separate licenses may be required to use different XDCAM air functions.

Camera License

- This is the basic license for the camera connection to the XDCAM air which is mandatory for the Live License, Metadata License and HEVC license.
- Users can preview and transfer the files on a camera remotely.
- Fixed to each camera by serial number and cannot be transferred. Camera licenses can be re-assigned by a Sony service representative but cannot be re-assigned by the customer.
- Users have to register the camera in the setting menu before use.

Metadata License

- Enables the sending the metadata to a camera.
- Requires the Camera License.
- Fixed to each camera by initial usage. Once it's used for the first time, the license is fixed to the camera and cannot be transferred. Metadata licenses can be re-assigned by a Sony service representative but cannot be re-assigned by the customer.
- Users have to check the checkbox of the Metadata License in the setting menu.

Live License

- Enables live streaming.
- This license is a floating license which charges to the number of concurrent recipients of live streaming. The streaming includes the streaming to the stream server and SNS casting.
- Requires the Camera License.

HEVC License

- Enables HEVC live streaming.
- Requires the Camera License and Live License.
- Fixed to each camera by initial usage. Once it's used for the first time, the license is fixed to the camera and cannot be transferred. HEVC licenses can be re-assigned by a Sony service representative but cannot be re-assigned by the customer.
- Users have to check the checkbox of the HEVC License in the setting menu.

XDCAM pocket License

- Users can download the XDCAM pocket license from Google Play or Apple Store and install free of charge.
- XDCAM pocket License charges to the stream number received by XDCAM air.
- This license is a floating license which charges to the number of concurrent recipients of live streaming. The streaming includes the streaming to the stream server and SNS casting.
- Users have to register the devices in the setting menu before use.

CMS License

- This is the license for Asset Management operations.
- The CMS license is a re-registerable license which charges to the number of concurrent access users.
- Users have to register the users in the setting menu before use, but it can be transferred to any other users. The CMS license sets the maximum number of concurrent access users.

Notes

- To check the usage status of a CMS license, see *“Registering Projects/Work Groups and Configuring Users” (page 5)*.
- To check the usage status of other licenses, see *“Registering a Stream Transmitter (TX)” (page 7)*.

