PS-API Introduction

1. Apr, 2022

i-PRO Co., Ltd.

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General Description

This document shows the specification concerning the IT resource of i-PRO Video Surveillance devices.
Please design the network referring to the description of this document when you connect the devices with the network.

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Stream ID support

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What is the Stream ID?

ND400

UID x 16 (*1)

Stream ID x 64 (*1)

For...
- **Status management**
- **Camera control**
- **Search**
- **FTP**
- **Alarm**
- **etc.**

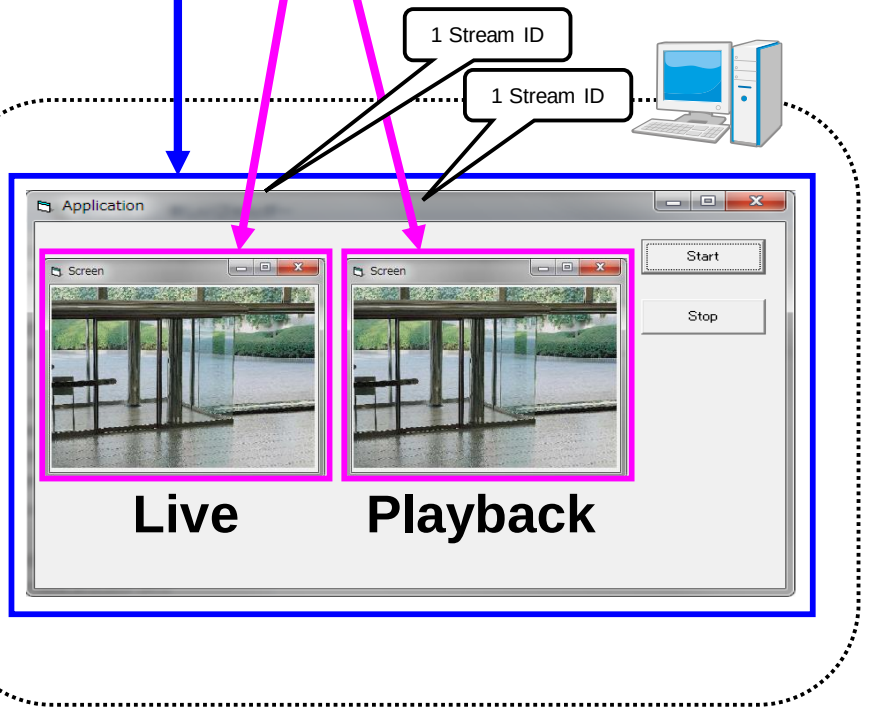
For...
- **Live**
- **Playback**

No relationship between UID and Stream ID.

ND400

Need 1 UID **per 1 Client**

Need 1 Stream ID **per 1 Stream**



***1 : ND400 UID = Max 16, Stream ID = Max 64**
NV200 UID = Max 4, Stream ID = Max 16
HD600 UID = MAX 8 , Stream ID = Max 64

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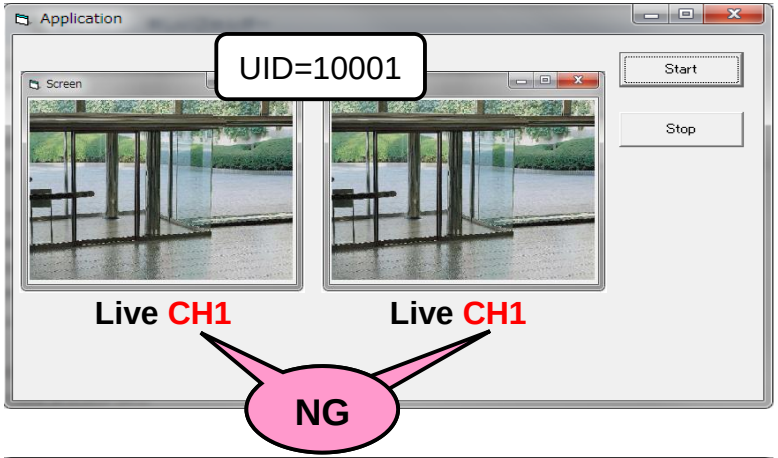
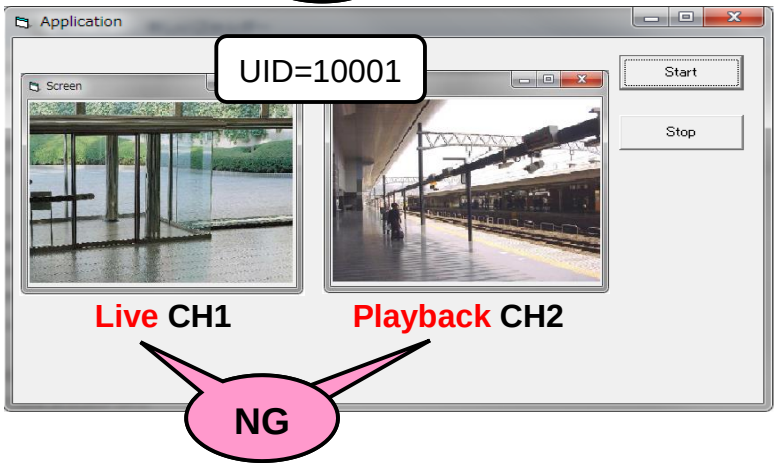
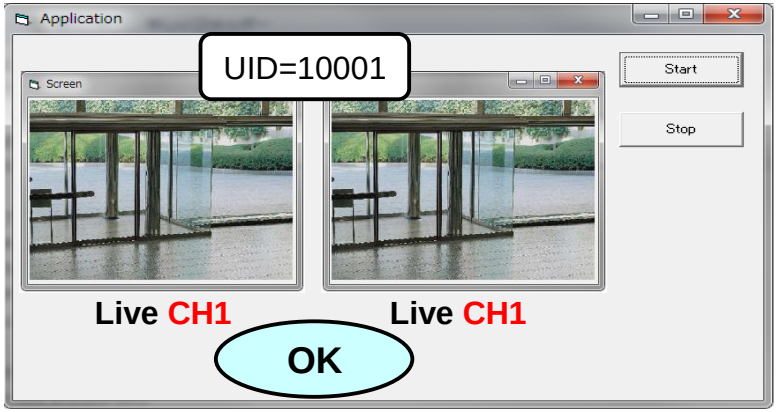
What is the benefit point?

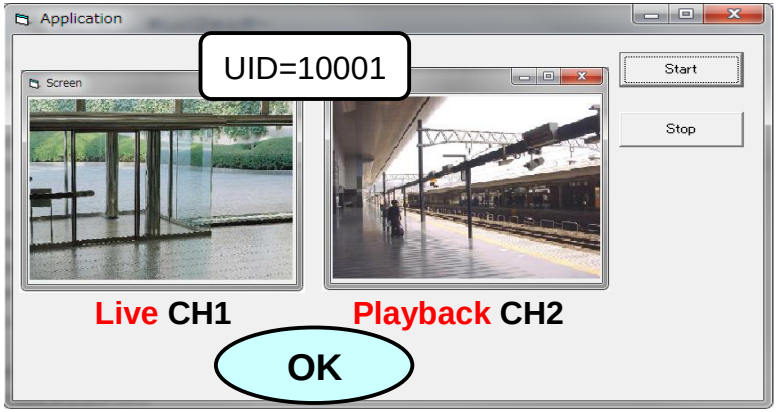
Version 5.0 or before





Version 6.0 or later with ***Stream ID mode***





NOTE : PS-API uses Stream ID internally, but it is NOT necessary for users to be conscious of Stream ID!

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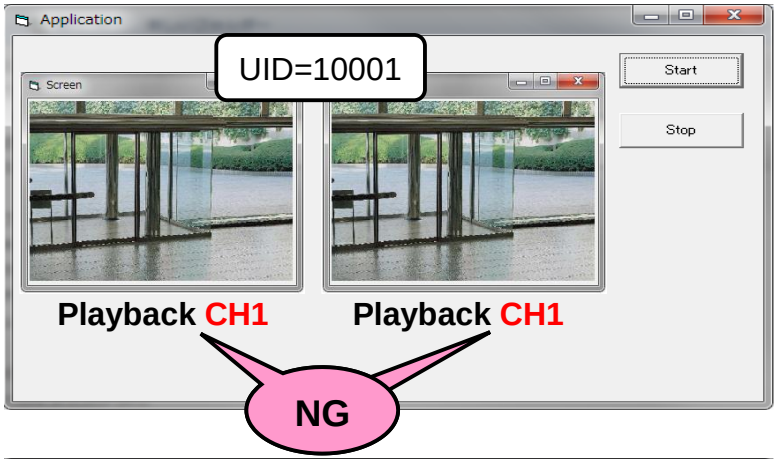
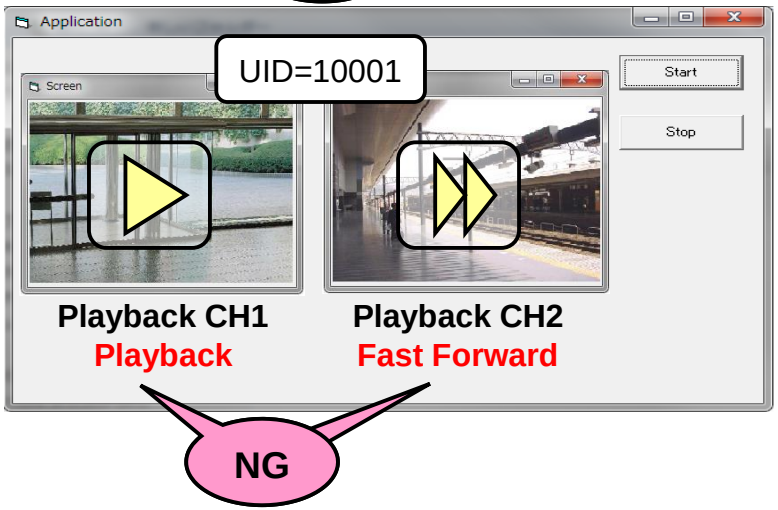
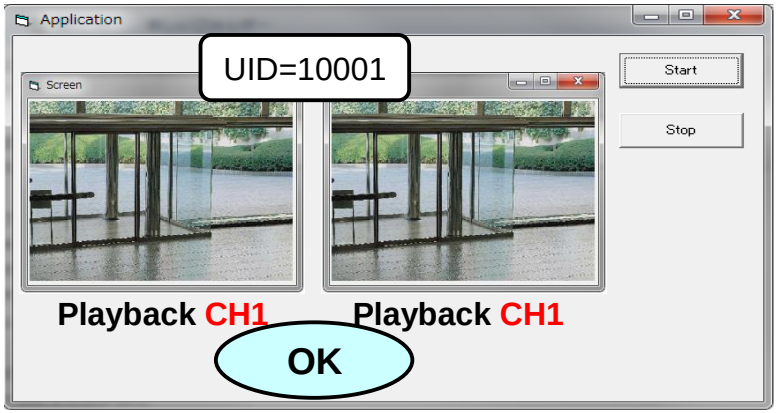
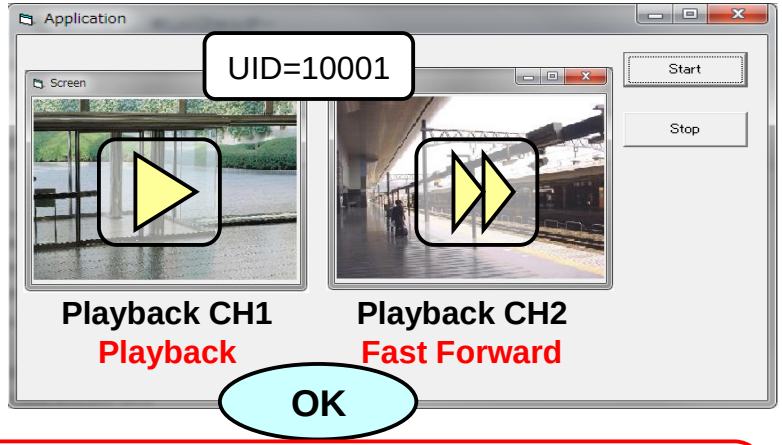




Version 6.0 or later with ***Stream ID mode***





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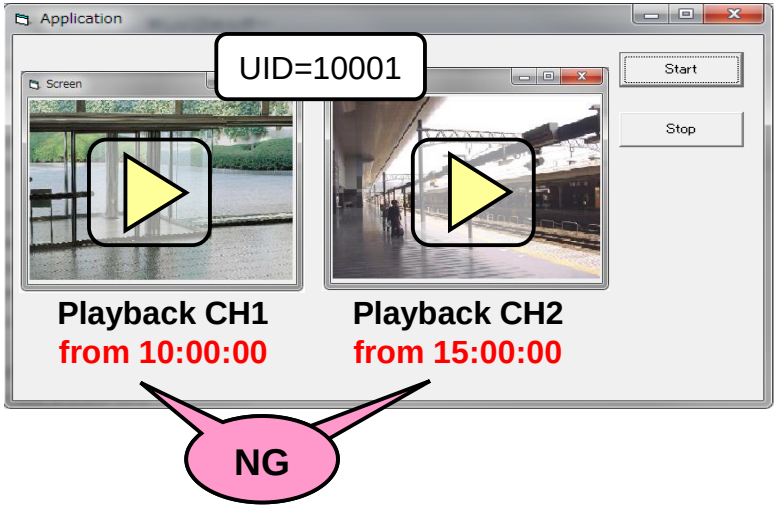
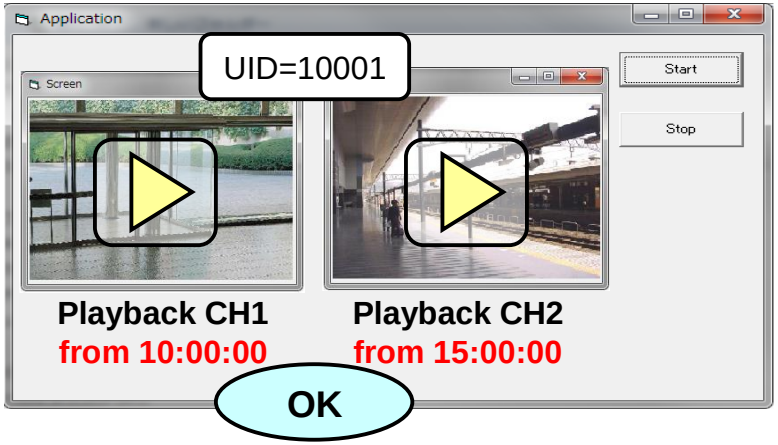


Version 6.0 or later with ***Stream ID mode***



NOTE : PS-API uses Stream ID internally, but it is NOT necessary for users to be conscious of Stream ID!

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What is the benefit point? <Summary>

Operation	PS-API V5.0 or before. (Not support StreamID)	PS-API V6.0 or later. (StreamID support)
Multiple instance Live	- Application CANNOT call the same camera (channel). - Application CANNOT mix PlayLive() and Play() between instances which use same UID.	- Application CAN call the same camera (cahnnel) flexibly. - Application CAN mix PlayLive() and Play() between instances which use same UID.
Multiple instance Playback	- Application CANNOT call the same camera (channel). - Application CANNOT control video with different operation. (playback/rewind/fast forward etc) - Application CANNOT mix PlayLive() and Play() between instances which use same UID. - When starting playback with Play(), application has to specify the same time and date to all instances that share UID.	- Application CAN call the same camera (channel). - Application CAN control video with different operation. (playback/rewind/fast forward etc) - Application CAN mix PlayLive() and Play() between instances which use same UID. - When starting playback with Play(), application can specify the optional time and date for each instance flexibly.
Camera control **Search** **FTP** **Alarm etc.** **(Except Live and Playback)**	No change. * Functions (except video control) need to use “UID”.	

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How to use UID and Stream ID when live/play?

Procedure to use PS-API with Stream ID mode.

1. **Connect to a target device.**
2. **Set Stream ID mode to PS-API.** NEW
3. **Start Live or Playback.**

   [View Live/Playback]
4. **Stop Live or Playback.**
5. **Disconnect from a target device.**

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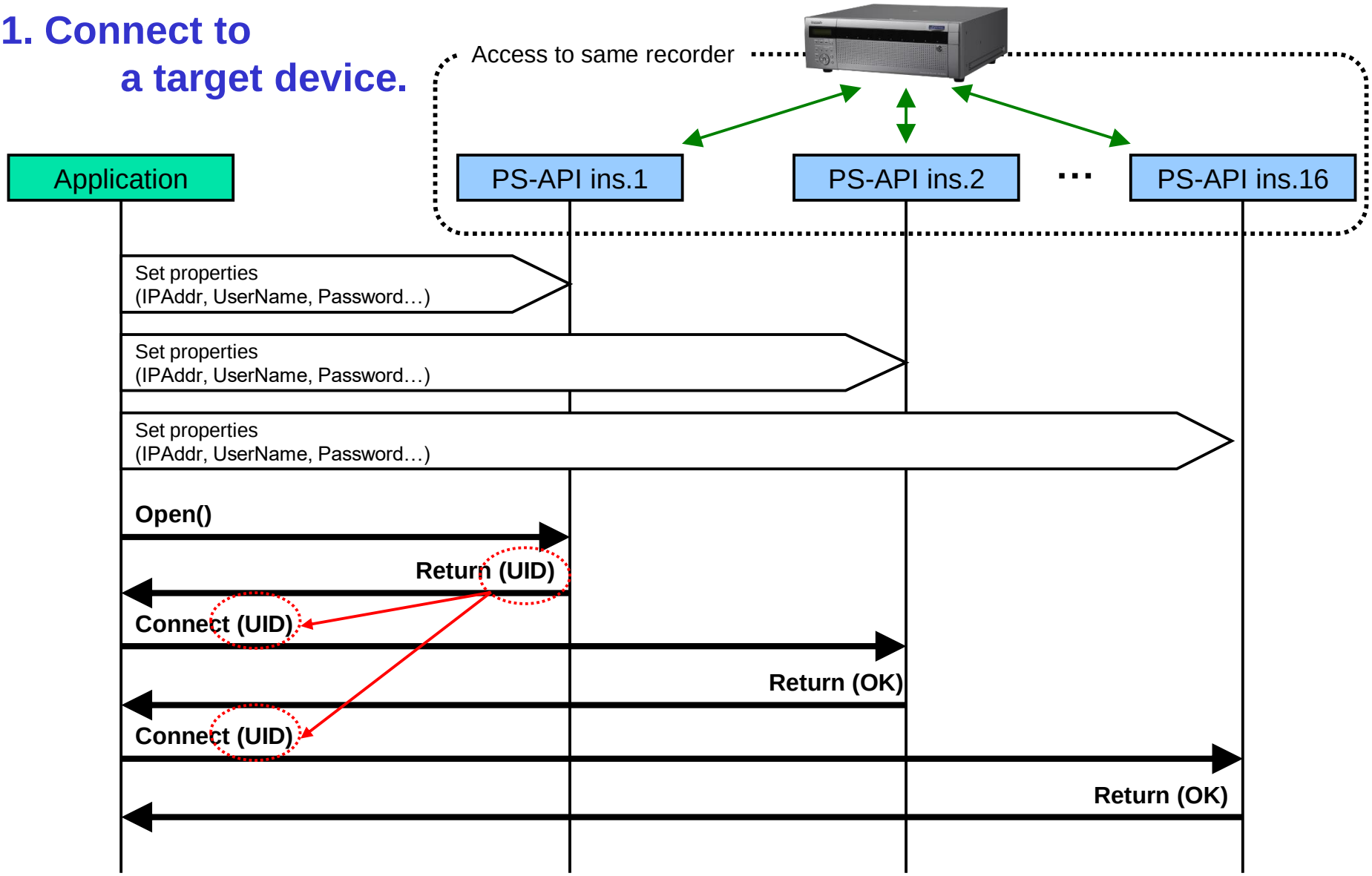
How to use UID and Stream ID when live/play?

1. Connect to a target device.



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How to use UID and Stream ID when live/play?

2. Set Stream ID mode to PS-API.

Access to same recorder

Application

PS-API ins.1

PS-API ins.2

PS-API ins.16

NEW

GetSIDInfo(SSID_INFO)

Return (OK)

SIDMode

By using GetSIDInfo method, user can know whether the target device supports Stream ID or not.

NEW

SetSIDMode(Mode)

NEW

SetSIDMode(Mode)

NEW

SetSIDMode(Mode)

Set the same value as SIDMode of SSID_INFO.
0 : Behave as UID mode. (Same as current behavior.)
1 : Behave as Stream ID mode.

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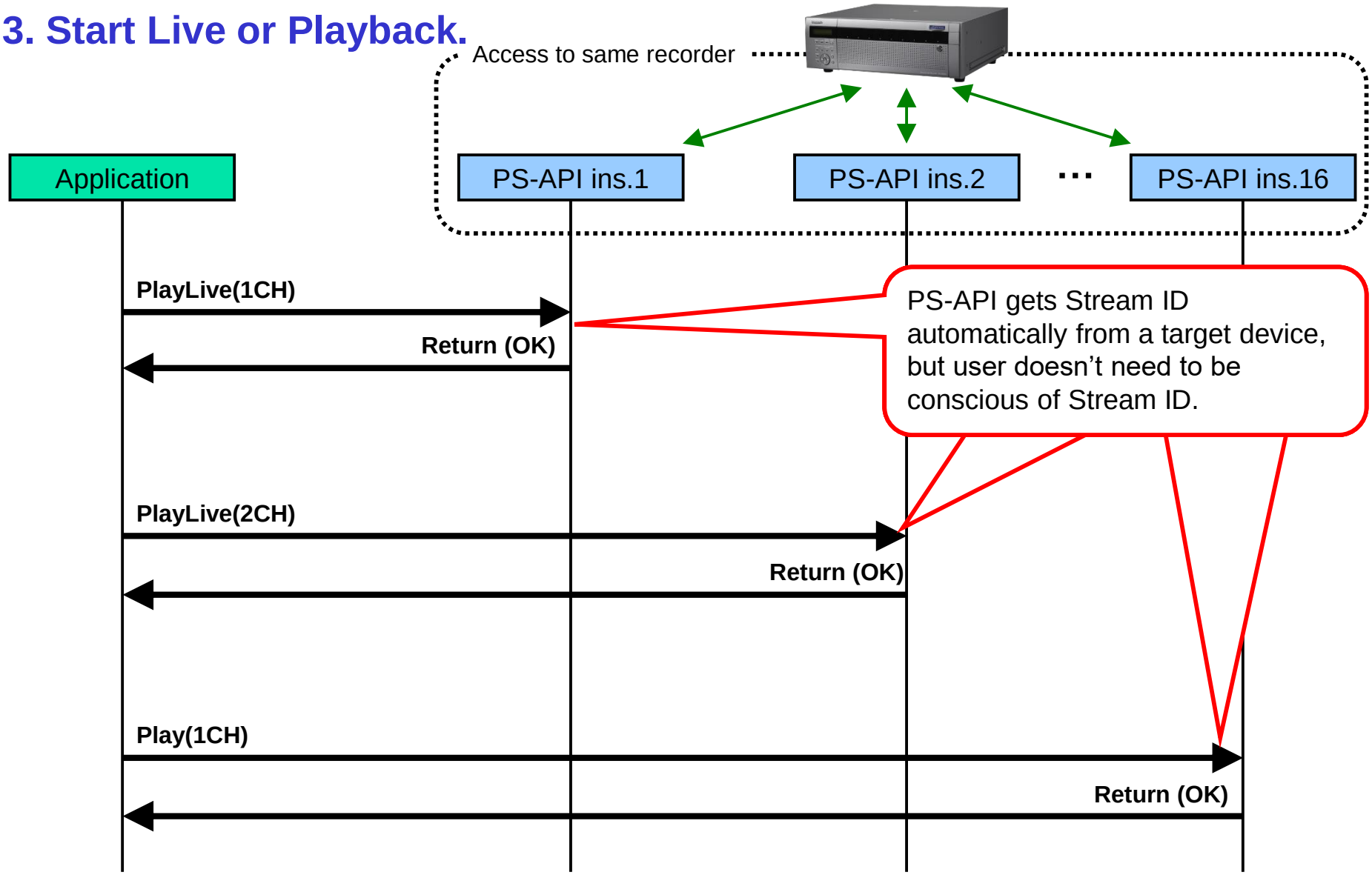
How to use UID and Stream ID when live/play?

3. Start Live or Playback.



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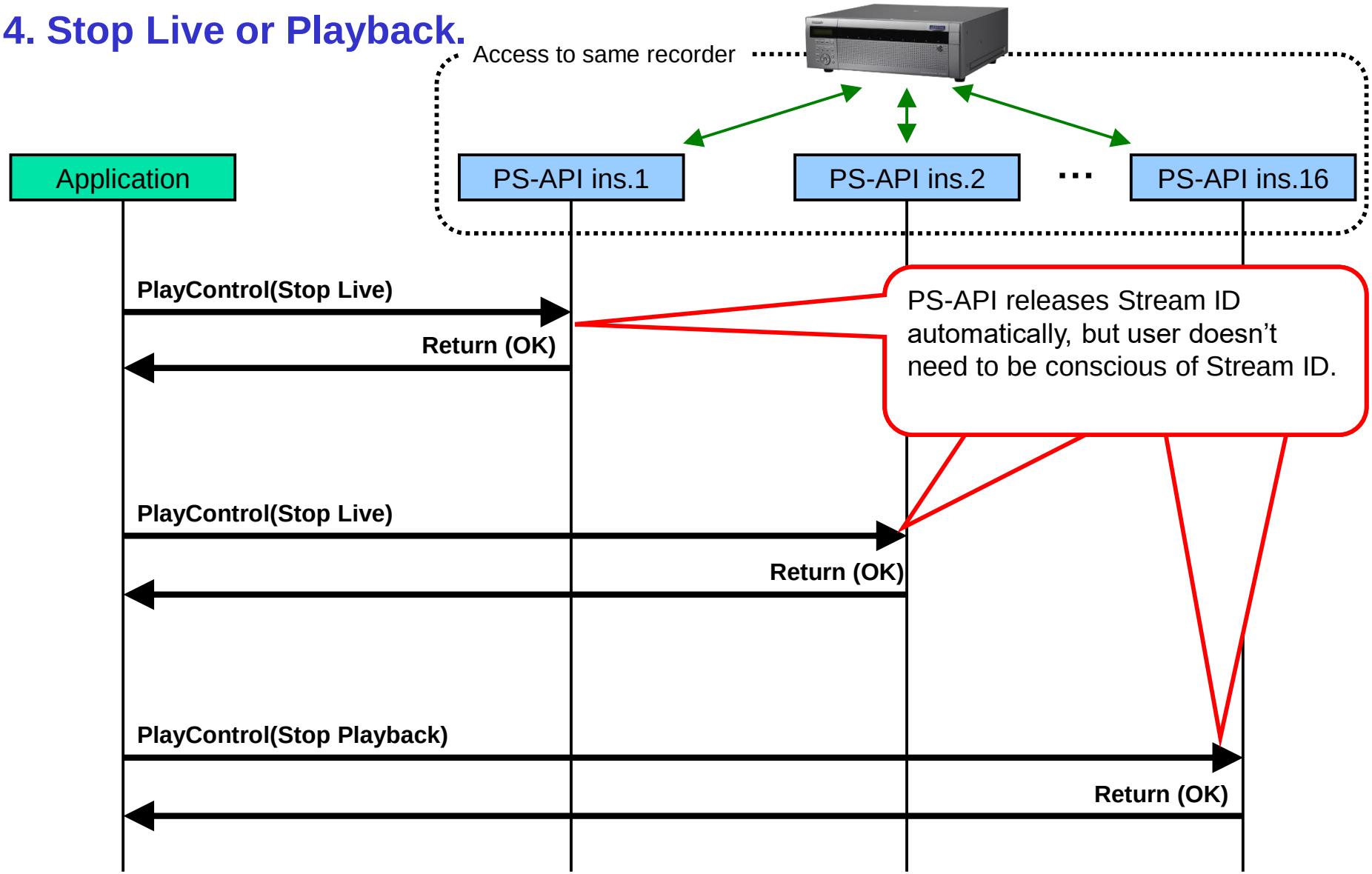
How to use UID and Stream ID when live/play?

4. Stop Live or Playback.



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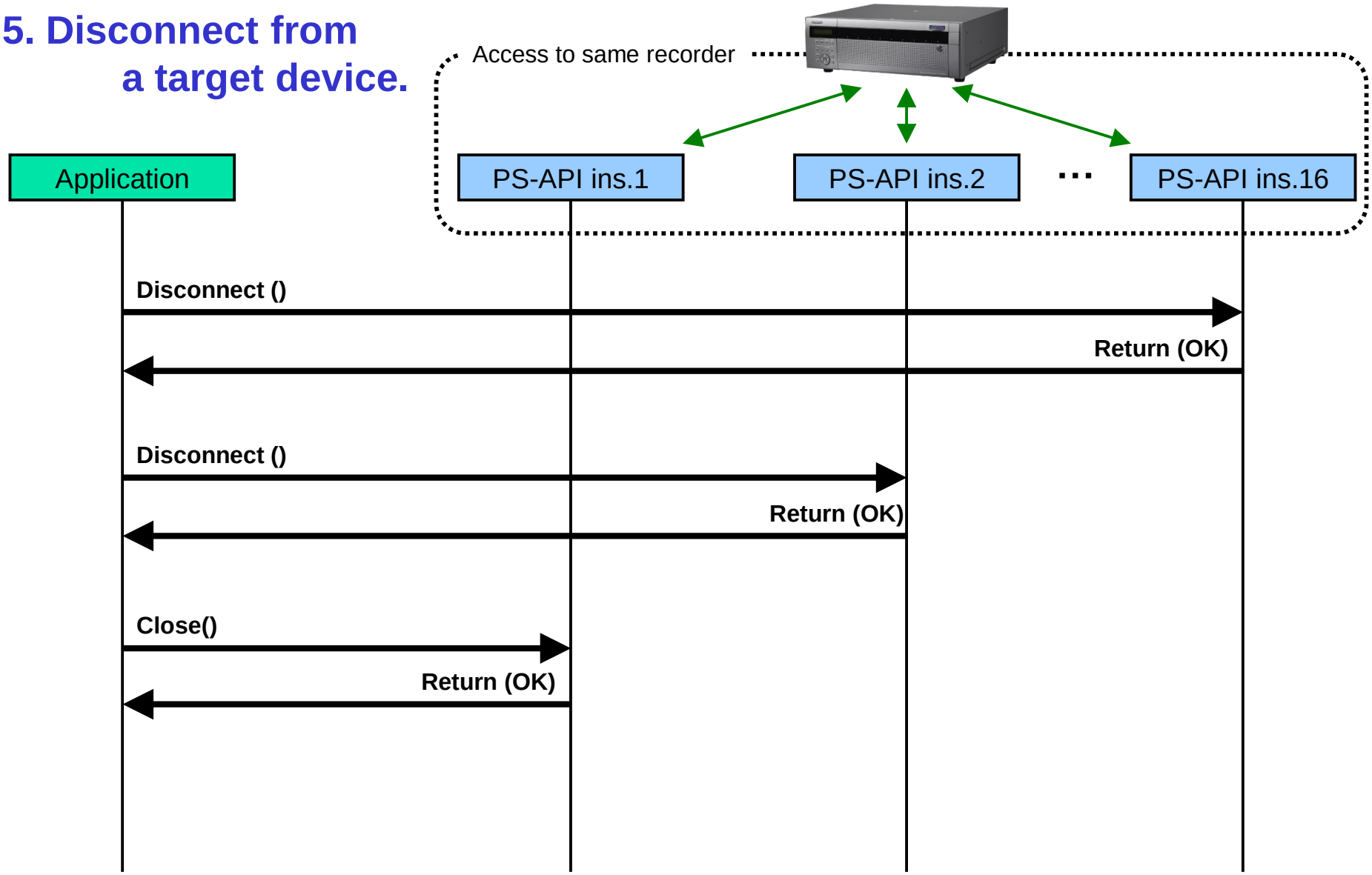
How to use UID and Stream ID when live/play?

5. Disconnect from a target device.



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What is the limitation of Stream ID?

1. User needs to use Open/Connect method and needs to be conscious of to share UID between PS-API instances which connect to same target device. Stream ID is used for Live/Playback only, and UID is needed to manage status, to control camera, to download and to control alarms etc.

   * Stream ID is gotten automatically by PS-API internally, therefore user doesn't need to be conscious of Stream ID.

2. 1 Stream ID is for 1 Live or Playback Stream

3. Maximum number of Stream ID that each recorder can issue is as follows.

Device	NX400/NX300 NX200/NX100	ND400	NV300	NV250	NV200	HD616/HD716
Maximum	64	64	32	24	16	64

4. Stream ID has First-Come-First-Serve mode only.

   * In case of ND400 (it has 64 Stream IDs), if ND400 already provide 64 Stream IDs, the 65th PS-API instance cannot get an Stream ID. Last PS-API (65th instance) cannot start Live (or Playback).

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