

Broadcast your Video Feed

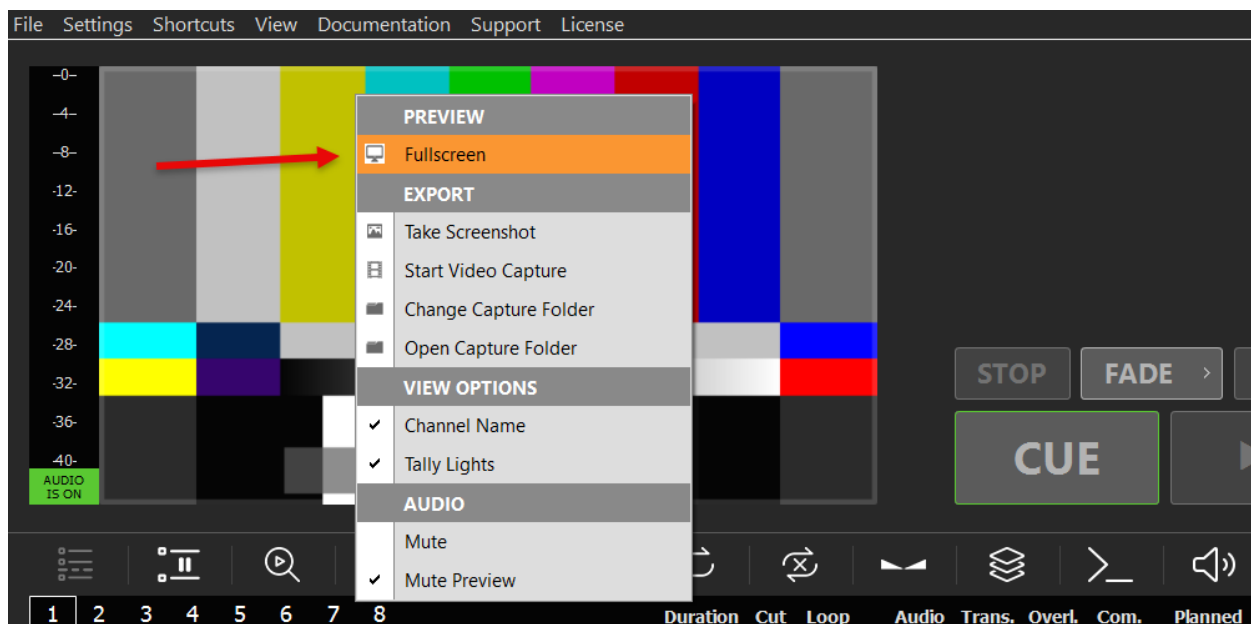
This article will show how to send your channel video feed to any desired target and audience.

In this article:

- Single-Monitor Output
- HDMI via Extended Desktop
- SDI / HDMI Output Card
- SMTP ST 2110 / IP Output Card
- NDI (Network Device Interface)
- Streaming (UDP, RTMP, SRT, DVB, ...)
- Dante Virtual Soundcard (DVS)
- Director View

Single-Monitor Output

The most simple way to show your Video Feed, is to output your Channel in Fullscreen. Enable Fullscreen by Double-Clicking the Preview or Right-Click and select "Fullscreen":



The Fullscreen Output will use a much higher quality and FPS as the regular Preview. You can exit the Fullscreen by pressing any Mouse Button or the ESC Key.

This Mode is best suited for quick private Slideshows. Here is an example on how to setup a Slideshow with PLAYDECK:

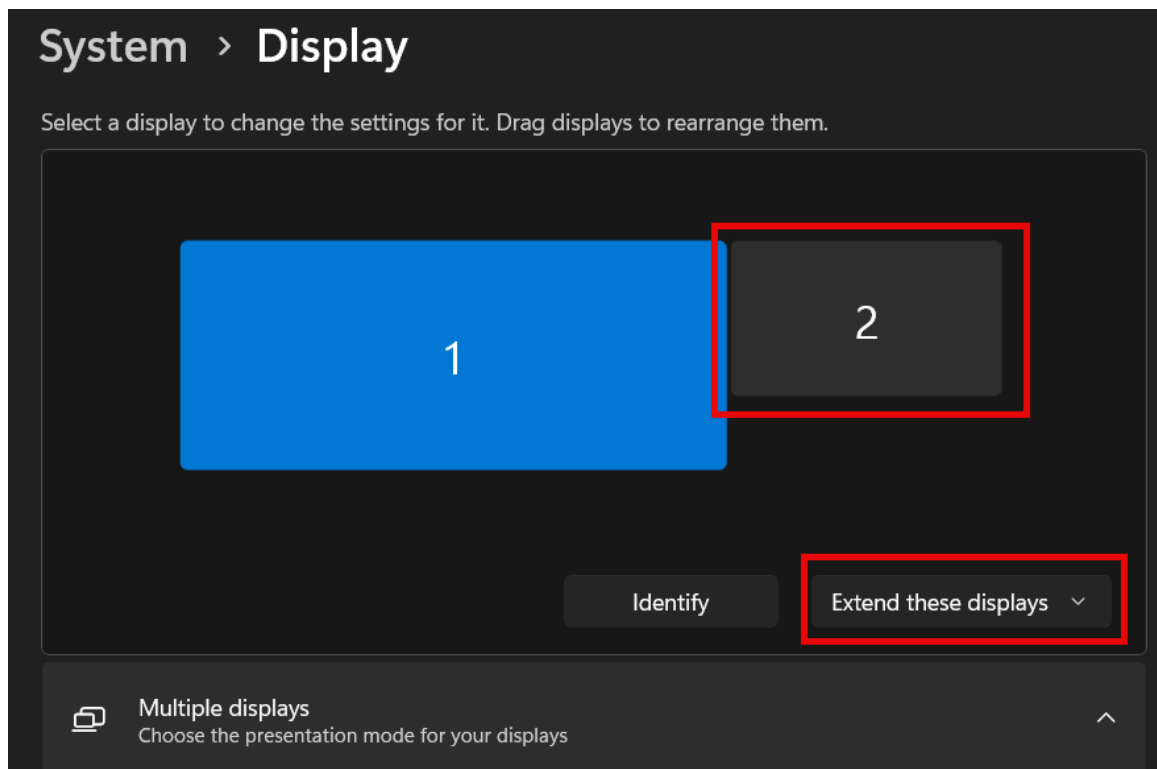
<https://playdeck.tv/howto/slideshow/>

HDMI via Extended Desktop

Another simple way to send your video feed is to use your HDMI outputs of your PC or your Graphics Card. To make the HDMI Output visible to PLAYDECK, you need to setup a new “Extended Desktop Output”, like you would do, if you added a secondary Monitor:

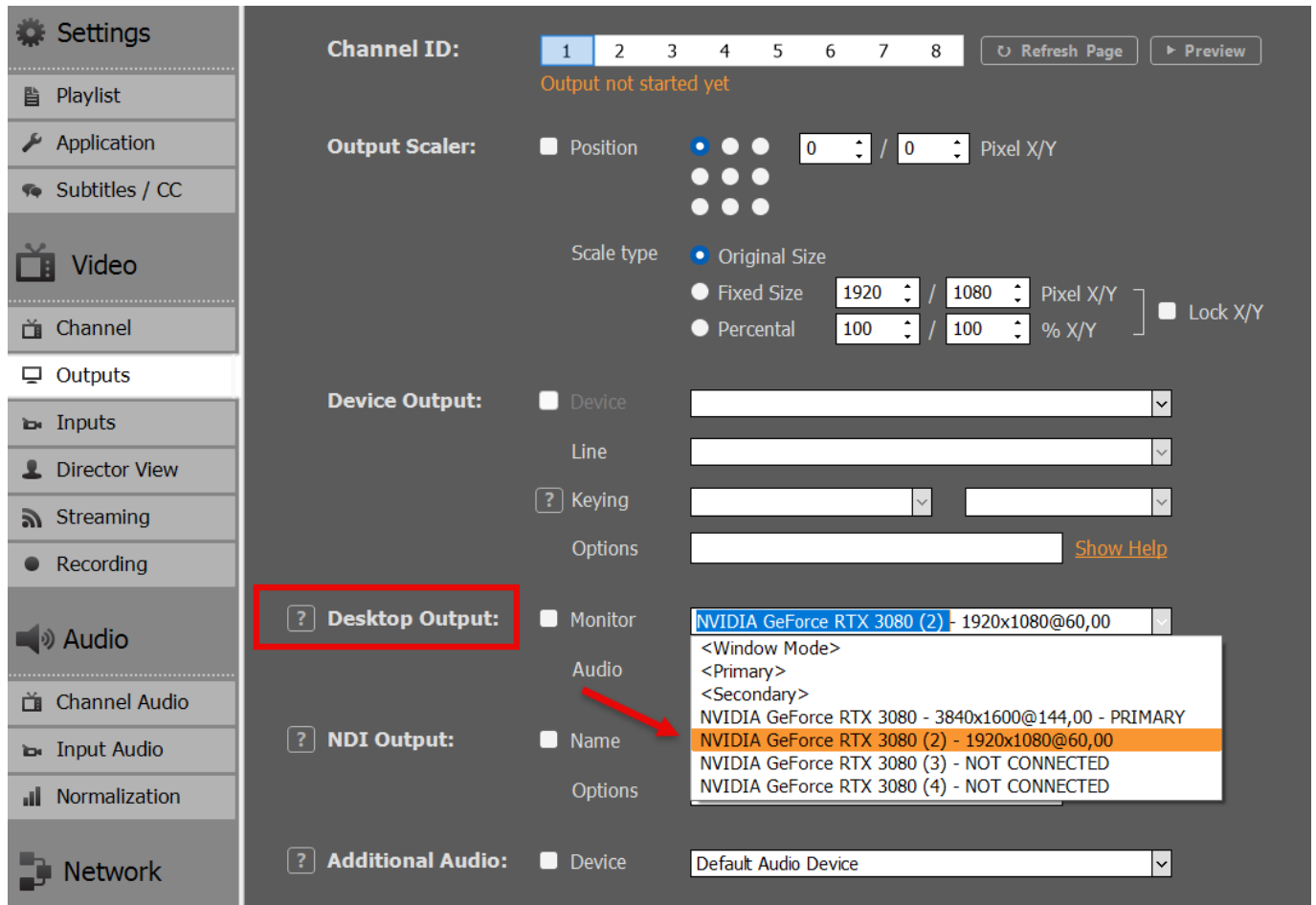
1. Connect in Windows

Connect your HDMI Device to your PC physically and turn the HDMI on, so Windows can find it. Connect it to your Graphics Card (preferred) or your Mainboard. Right-Click anywhere on your Desktop and select “Display settings”. You should see your new Monitor and it should say “Display is extended” (That’s why it’s called “Extended Desktop”). If you don’t have access to your HDMI Output Device yet (e.g. LED Screen), you can use any Dummy PC Monitor for Setup. PLAYDECK will later scale your (other) output automatically, if you use the same HDMI Port. Please also make sure, your Monitor uses 60 FPS and not 120 or 144, as this might lead to lag.



2. Assign in PLAYDECK

Start PLAYDECK and select your new Monitor as “Desktop Output” for your Channel. Once activated, PLAYDECK will “overlay” its output on the Monitor. It will be On-Top of all other Windows Apps and the Mouse Pointer will be disabled. Should you accidentally activate this on your PRIMARY Display, press ALT+F4 to close it, as you cant access Windows or PLAYDECK otherwise.



PLAYDECK is able to re-connect to your Desktop Output, should it disconnect or on a power-loss or if the HDMI Device is receiving power after PLAYDECK has been started already.

This Mode is best suited for local transmission to a TV or LED Screen, e.g. during exhibitions or events.

SDI / HDMI Output Card

Output Cards have a huge advantage over Desktop Output:

- Stronger Video Signal for longer cable transport
- Much less CPU/GPU Usage, as Card will offload resources
- No Frame Drops, as Cards have integrated Frame Rate Control and Conversion
- Much higher picture quality, especially Colors

Output Cards are almost always worth the costs and are highly recommended. They provide a much more stable video transport solution compared to Desktop Output and an overall better experience.

Find a list of all supported Output Cards:
<https://playdeck.tv/howto/supporteddevices/>

If you need a recommendation, we mostly use BlackMagic DeckLink Cards. They are available for SDI and HDMI:

<https://www.blackmagicdesign.com/products/decklink>

1. Install the Output Card into your PC

You would need a separate PCIe Slot on your Mainboard. Imagine this Card as "Secondary Graphics Card". Please make sure, that the PCIe provides the necessary bandwidth needed by the Device. Some PCIe Slots are "shared" and only have half the bandwidth, leading to stuttering video output. This might be changed via BIOS. You can also "host" your Card in an external housing for mobile production, like the "Sonnet Echo Express" and connect it via Thunderbolt, but please be aware that bandwidth available via Thunderbolt is lower than the PCIe bandwidth required for some some Cards like the "DeckLink 8K Pro".

2. Install Driver for Windows

Most Cards need a specific Driver installed for Windows to operate. Those Driver also deliver Tools to test the Card before using it in PLAYDECK.

Make sure, you always have the latest Version of the Driver installed in your System for maximum stability and quality. For BlackMagic Card, PLAYDECK needs at least "Desktop Video 14.5" as Driver, otherwise the Card will not work as intended:

<https://www.blackmagicdesign.com/support/family/capture-and-playback>

3. Activate in PLAYDECK

Select your Output Cards and Line in PLAYDECK and activate the Device Output. Unlike Desktop Outputs, these Output Cards don't need a connected display via SDI or HDMI, they will activate right away:

The screenshot displays the PLAYDECK Settings window. On the left is a sidebar with navigation options: Settings, Playlist, Application, Subtitles / CC, Video, Channel, Outputs, Inputs, Director View, Streaming, Recording, Audio, Channel Audio, Input Audio, Normalization, and Network. The main panel is titled 'Settings' and shows various output configurations. At the top, 'Channel ID' is set to 1, with a status 'Output is running'. Below this, 'Output Scaler' settings include 'Position' (a 3x3 grid), 'Scale type' (Original Size, Fixed Size, or Percent), and 'Lock X/Y' checkbox. The 'Device Output' section is highlighted with a red rectangle and includes: 'Device' (checked), 'DeckLink Duo 2' (selected in a dropdown), 'Line' (SDI), 'Keying' (None), 'Straight Alpha', and an 'Options' field with a 'Show Help' link. Below this, 'Desktop Output' shows 'Monitor' as 'NVIDIA GeForce RTX 3080 (2) - NOT CONNECTED' and 'Audio' as '<No Audio>'. 'NDI Output' shows 'Name' as 'PlaydeckCh1' and 'Group' as an empty field. 'Additional Audio' shows 'Device' as 'Default Audio Device'.

Settings

Channel ID: 1 ✓ 2 3 4 5 6 7 8 Refresh Page Preview

Output is running

Output Scaler:

☐ Position ☒ Original Size ☐ Fixed Size ☐ Percent

Scale type: 0 / 0 Pixel X/Y

Lock X/Y

Device Output: ☒ Device DeckLink Duo 2

Line: SDI

Keying: <None> Straight Alpha

Options: Show Help

Desktop Output: ☐ Monitor NVIDIA GeForce RTX 3080 (2) - NOT CONNECTED

Audio: <No Audio>

NDI Output: ☐ Name PlaydeckCh1 Group:

Options: Show Help

Additional Audio: ☐ Device Default Audio Device

SMTP ST 2110 / IP Output Card

These Cards are very similar to SDI/HDMI Cards described above. Please read there for Installation.

The difference between 2110 and SDI Cards is, that 2110 Cards send the signal via LAN (local area network). This is a modern and growing standard for Studios to transport video signals within the company. While it is theoretically possible to use existing LAN for ST 2110, it is recommended to use a separate LAN with specific PTP-aware switches (precision time protocol). Once setup, the main advantage is, the multiple receiver can easily access the video feed generated by PLAYDECK.

We provide a separate article for 2110 Devices and their Network setup options:

<https://playdeck.tv/howto/2110-device-setup/>

NDI (Network Device Interface)

NDI is another Network Transport Option for your video feeds. It can be used with the existing LAN (local area network) and doesn't need specific network configuration. It provides its own "discovery system", meaning: You send your NDI signal into the network and it will be automatically detected by any NDI receiver.

NDI is the preferred method to exchange video feeds with other Applications. Here are some examples:

<https://playdeck.tv/howto/obs-studio/>

<https://playdeck.tv/howto/vmix/>

NDI can also be used in a Cloud Setup, e.g. Amazon EC2 instances, to transport between server:

<https://playdeck.tv/howto/amazon-ec2/>

You can use NDI to "loop" the Signal within PLAYDECK for specific Tasks, like this Picture-In-Picture:

<https://playdeck.tv/howto/pip/>

There are many tools available to help you setup NDI in your environment:

<https://ndi.video/tools/>

If you need to setup a NDI Discovery Server, this will help you:

<https://ndi.video/tools/access-manager/>

[https://docs.ndi.video/all/using-ndi/ndi-tools/ndi-tools-for-windows/access-m
anager](https://docs.ndi.video/all/using-ndi/ndi-tools/ndi-tools-for-windows/access-manager)

Note: There has been a problem with NDI causing stuttering after a window update. Here is the solution:

<https://www.vmix.com/knowledgebase/article.aspx/376/windows-update-affecting-ndi-stability>

Streaming (UDP, RTMP, SRT, DVB, ...)

You can pick out of several Streaming Protocols, which all serve a different purpose.

- **UDP/RTMP Streaming:** Low-latency Live Streaming
- **SRT:** High-reliability Broadcasts
- **DVB:** Traditional Broadcasting
- And many more (RTP, RIST, Icecast, HLS)

To setup your Stream in PLAYDECK, we recommend browsing thru the additional information provided behind the SHOW HELP Buttons. They navigate you to your specific needs and explain the more deep configuration options for each and every streaming protocol:

Stream ID: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
Stream not started yet [Refresh Page](#) [Preview](#)

Activate: [Start Now](#) [Stop Now](#) ☐ Stream is always active

Stream Source: ☒ Channel ☐ Input ☐ Director View
Channel 1 Input 1 Director 1

Stream Protocol: RTMP Streaming [Show Help](#)

Stream URL: [rtmp://live-ams.twitch.tv/app/live_12312412412_JDRdD9tSreN](#) [Show Help](#)

Preview URL: [https://www.twitch.tv/JOYeventmedia](#)

Video Format: HD1080-60p HDYC 1920x1080@60.00p 16:9 [Custom](#)

Video Codec: NVIDIA NVEnc H.264 Encoder Bitrate: 5 Mb/s [Show Help](#)

Audio Format: Channel: 2 Sample rate: 96.0 kHz Bit depth: 16-bit

Audio Codec: AAC (Advanced Audio Coding) Bitrate: 128 kb/s [Show Help](#)

We provide some additional article on some stream types:

<https://playdeck.tv/howto/srt-streams/>

<https://playdeck.tv/howto/dvb-streams/>

Note: NVENC Video Codec does NOT support Interlaced formats anymore, which has been a decision made by NVIDIA. Use “Intel QuickSync SW H.264 Encoder” instead.

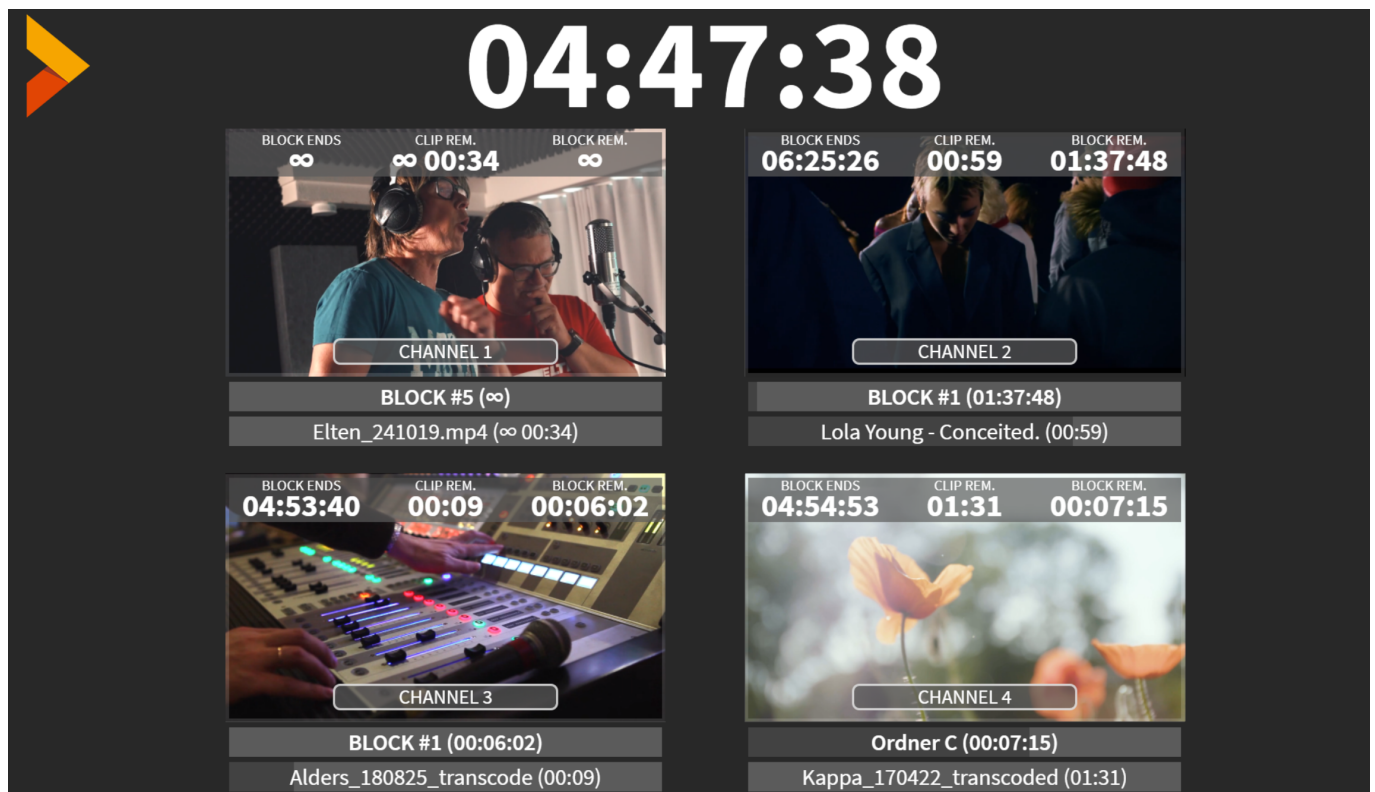
Dante Virtual Soundcard (DVS)

This is strictly speaking not a video feed, as DVS is audio-only. This is yet another Network (LAN) Option. The use case for DVS is, if you need to send your audio feed SEPARATE or ADDITIONAL to your video feeds, or in audio-only productions. The most common use case is, that in live events, the audio mixer needs ALL audio feeds of ALL PLAYDECK channel, meaning: He wants to receive 8 audio channel in stereo pairs of your 4 video channel.

We are providing an article to setup and use Dante:
<https://playdeck.tv/howto/dante/>

Director View

This is a specific Output option PLAYDECK provides, to inform your crew of the state of affairs: This will mix several different video feeds into one video feed and overlay information about remaining time. This is meant to provide assistance in a multi-room or multi-person environment.



This video feed works like a separate channel: You can send it parallel to your other outputs. You can setup and send up to 4 different Director Views. You can pick how many and which channel should be included:

Settings

Playlist

Application

Subtitles / CC

Video

Channel

Outputs

Inputs

Director View

Streaming

Recording

Audio

Channel Audio

Input Audio

Normalization

Network

Incoming

Outgoing

Director ID:

1 ✓ 2 3 4

Refresh Page

Preview

Director is running

Video Source:

☐ Single Channel

Ch. 1

☐ Fullscreen

☐ Dual Channel

Ch. 1

Ch. 2

☒ 4 Channel

Ch. 1

Ch. 2

Ch. 3

Ch. 4

☐ Quad Split

☐ 8 Channel

Modify Templates

Video Format:

HD1080-50i HDYC 1920x1080@25.00iT 16:9

Audio Source:

☐ Include Audio from Channel

Channel 1

Overlay Options:

☒ Show Timer Overlays
☒ Show Channel Names

☐ Show Tally Lights
☐ Show Playlist Notes

Device Output:

☒ Device

DeckLink Duo 2 (2)

Line

SDI

Desktop Output:

☐ Monitor

<Window Mode>

Audio

<No Audio>

NDI Output:

☐ Name

PlaydeckDV1

Group:

Streaming only:

☐ Active

In addition, you can modify the overlay to fit your own company, e.g. integrate your own logo or change fonts.