

User Manual

NDI Core

NDI Series

KILOVIEW NDI Core is a large cluster-type NDI signal managing and switching system. It can manage signal sources from dozens to thousands and building smooth and seamless switching channels for those signal sources. NDI Core supports various formats of NDI stream input switching, NDI signal copy and enlarge output, custom play list, user management, log management and more functions, designed for broadcast and television post production, multiple NDI projection and multi-channel NDI conferences.

Contents

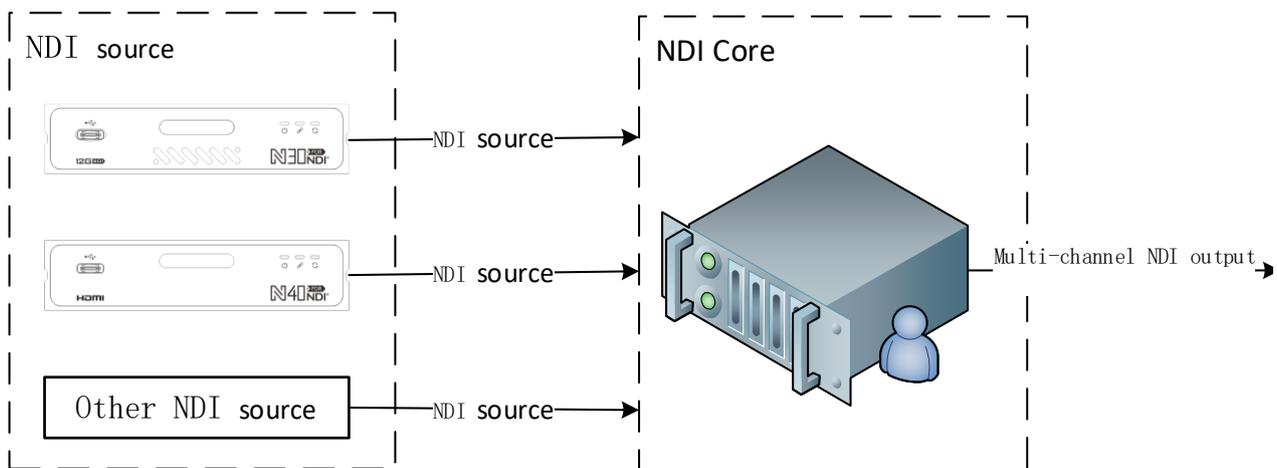
1	NDI Core System Introduction	3
2	Login to NDI Core	4
3	Dashboard	5
3.1	Network status	5
3.2	System status	5
3.3	Resources	6
3.4	Log	7
4	Source Management	7
4.1	NDI Input	7
4.2	NDI Output	9
5	Panel Control	9
5.1	Add Panel	10
5.2	Panel Management	10
6	NDI Core Output Play	13
	Step 1: Enter the management page of Kiloview Multiview	14
	Step 2: Find the NDI channel output by the NDI Core in the “Discovery”	14
7	Play List	15
8	Network Status	16
9	User Management	16
10	Log	17

1 NDI Core Introduction



Website for more information about NDI Core

<https://www.kiloview.com/en/ndi/ndi-Core/>



Introduction

NDI Core mainly solves the issue that the NDI encoder cannot be pulled by multiple back-ends at the same time. NDI Core virtualizes the video source into multiple NDI channels for output, and integrate more functions such as video source switching and video play play.

By creating a play list, users can freely set the program source, dynamically adjust the playback sequence, playback time to achieve the sequence, loop, and switch playback of video sources.

- NDI video sources support FULL NDI and NDI|HX input compatible with any other software/hardware output NDI to the NDI Core system.
- When the Core receives NDI|HX, the virtual output is also NDI|HX. If the video source is FULL NDI, the output is also FULL NDI.
- It is recommended to use a 10 Gigabit port at least for the NDI Cluster. If you need more NDI streams, you can choose a higher network port or multiple network cards.

2 Login to NDI Core

Enter `http://server IP: 81/` in the browser and log in to the NDI Core system. The user name and the password both are **admin** by default.



Note

- To ensure information security, please change your password immediately after logging in for the first time!
- NDI Core login port is 81 by default.



More information about NDI Core system deployment

[https://www.kiloview.com/en/support/docs/kiloview-ndi-core-server-deployment-guide/
kiloview-ndi-core-server-deployment-guide/](https://www.kiloview.com/en/support/docs/kiloview-ndi-core-server-deployment-guide/kiloview-ndi-core-server-deployment-guide/)

3 Dashboard

Click “Dashboard” on the WEB page to check the system information includes network status, system status, resources and logs.

3.1 Network status

Shows all network device information and traffic statistics on the NDI server.



Introduction

- **eno1**: Core The name of the network card on the Core server.
- **49.12G/1.37T**: Total upstream traffic/downstream traffic of the current device
-  : The maximum bandwidth of the current device
-  : Real-time traffic output of the current device
-  : Real-time traffic input of the current device

3.2 System status





Introduction

When the system memory and CPU are too high, please confirm whether the performance of the NDI Core device is insufficient due to a large number of transmissions. You may need to update your hardware system.

The time line below shows the memory and CPU usage in the past time, and the current time is 0s.

- **Memory Usage:** Current memory usage
- **CPU Load:** Current CPU Load
- **Operation Time:** Total running time of NDI Core system
- **Start Time:** NDI Core start time

3.3 Resources



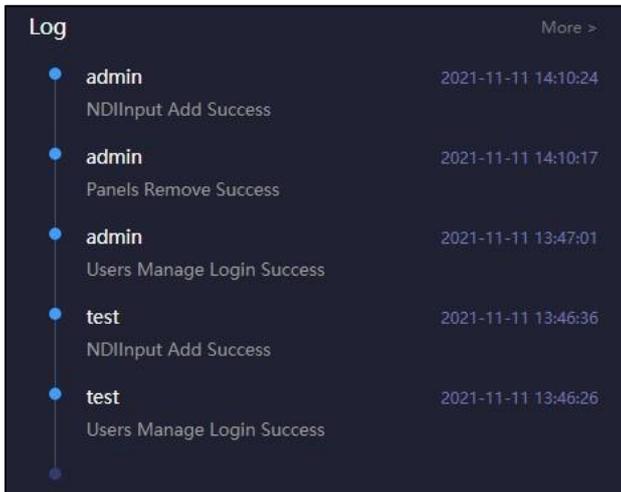
Introduction

Shows the number of inputs and outputs of NDI Core.

- **Total NDI input:** All NDI video sources added by users are counted, but those have not been added are not included
- **My NDI input:** NDI video sources added under the user
- **Total NDI output:** All NDI output sources created by users.
- **My NDI output:** NDI output sources created under the current user.
- **My Panel:** The control panels created under the current user.

3.4 Log

Statistics of all operations on the NDI Core system include the time and the account of the operation, which is conducive to troubleshooting.



User	Operation	Timestamp
admin	NDIInput Add Success	2021-11-11 14:10:24
admin	Panels Remove Success	2021-11-11 14:10:17
admin	Users Manage Login Success	2021-11-11 13:47:01
test	NDIInput Add Success	2021-11-11 13:46:36
test	Users Manage Login Success	2021-11-11 13:46:26

4 Source Management

Click “Source Management” to enter to the NDI input or output to add and manage video sources.

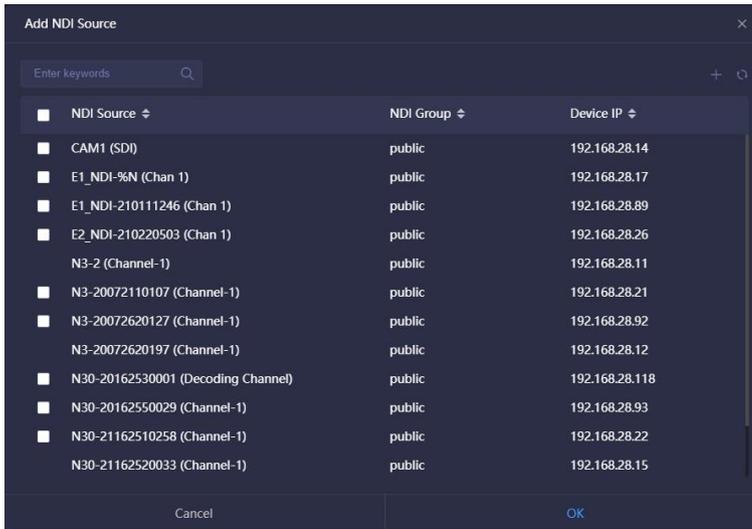
4.1 NDI Input

Click “NDI Input” to enter the NDI input source management page. Click "Add Source", all NDI sources under the same network segment will be automatically discovered and displayed. Select the NDI video source that needs to be added and saved.



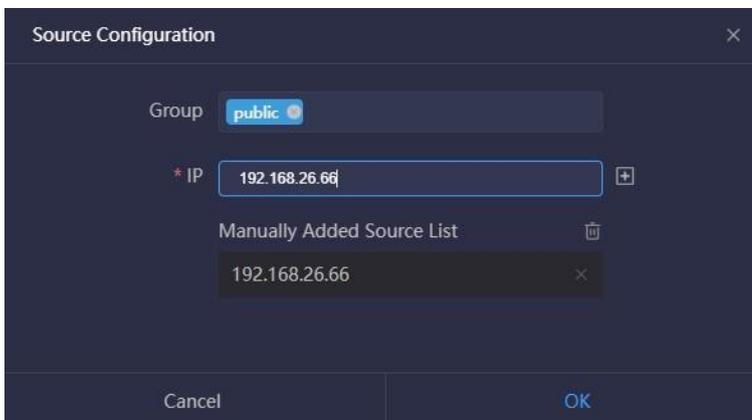
Introduction

Not all discoverable NDI sources transmitted by the NDI Core system. Only the video sources added to the NDI Core can be switched and copied.



The sources automatically discovered by the above method are the sources under the same subnet in the LAN, and the sources are in the public group. If the sources are not in the same subnet or not in the public group, please add it to the list manually.

Click **+** to add it manually.



Introduction

- **Group:** The group name of the NDI video source is public group by default.
- **IP:** Fill in the IP address of the NDI source, click **+** to add the IP address to the address list.
- **Manually Added Source List:** The IP address added to the address list will be displayed in the NDI source, and can be deleted by click the icon **×**
- **🗑️** : Delete all IP addresses in the list.

4.2 NDI Output

Create NDI virtual output, realize NDI output by controlling input NDI source or play list, and support single NDI source input and output with multiple NDI channels.

Click "NDI Output" to enter the NDI output management page. Click "Add Source" to create an NDI output channel.



Introduction

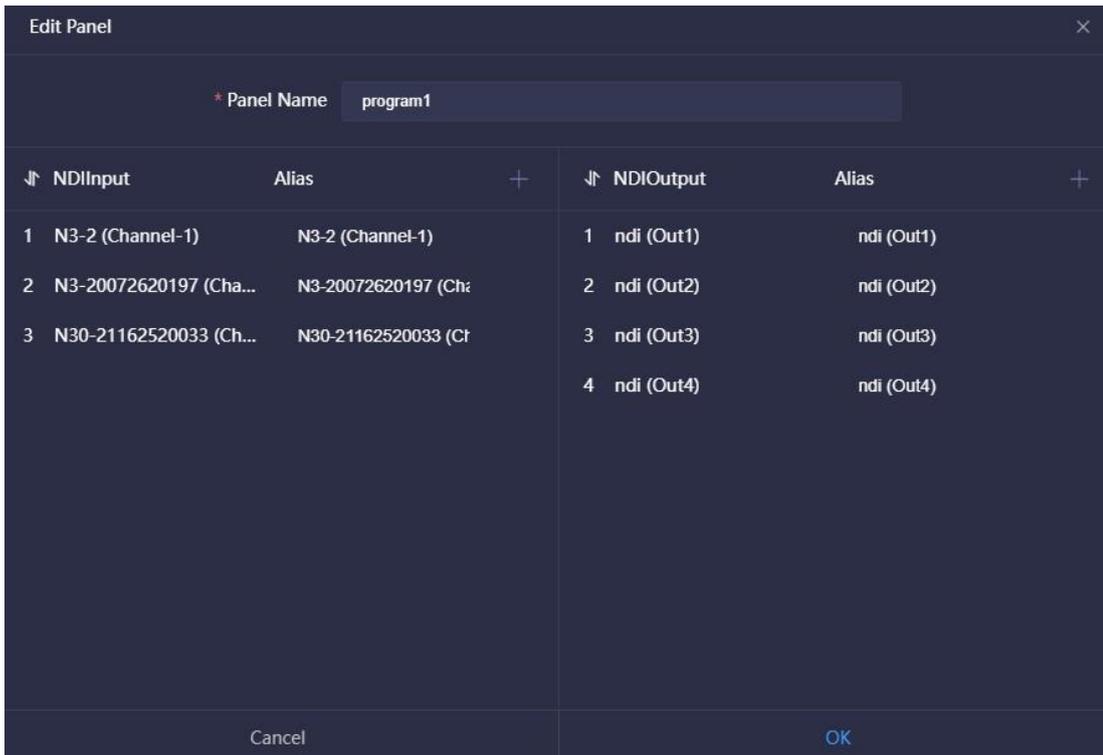
- **NDI Channel Name:** Output NDI channel name. Please use different names to create multiple NDI outputs. The combination of text, numbers and symbols are supported.
- **NDI Group:** Assign the group of the NDI stream. The public group is the one by default. The group name can be a combination of English letters, numbers, and special symbols. Supports sending to multiple groups, please use commas to separate groups
- **Smooth Switch:** When switching between different sources, to ensure a smoother stream output, it is recommended to set a switching delay. If the resolution and frame rate of the switched NDI video sources remain the same, the switching output can be smoother as well.

5 Panel Control

Click "Panel Control" to create a control panel, configure the NDI input and output, provide cross and IO panel switching options, support single play and loop play configurations.

5.1 Add Panel

Click "Add Panel" under the "Panel Control" to create a switch configuration panel associated with NDI input and output.



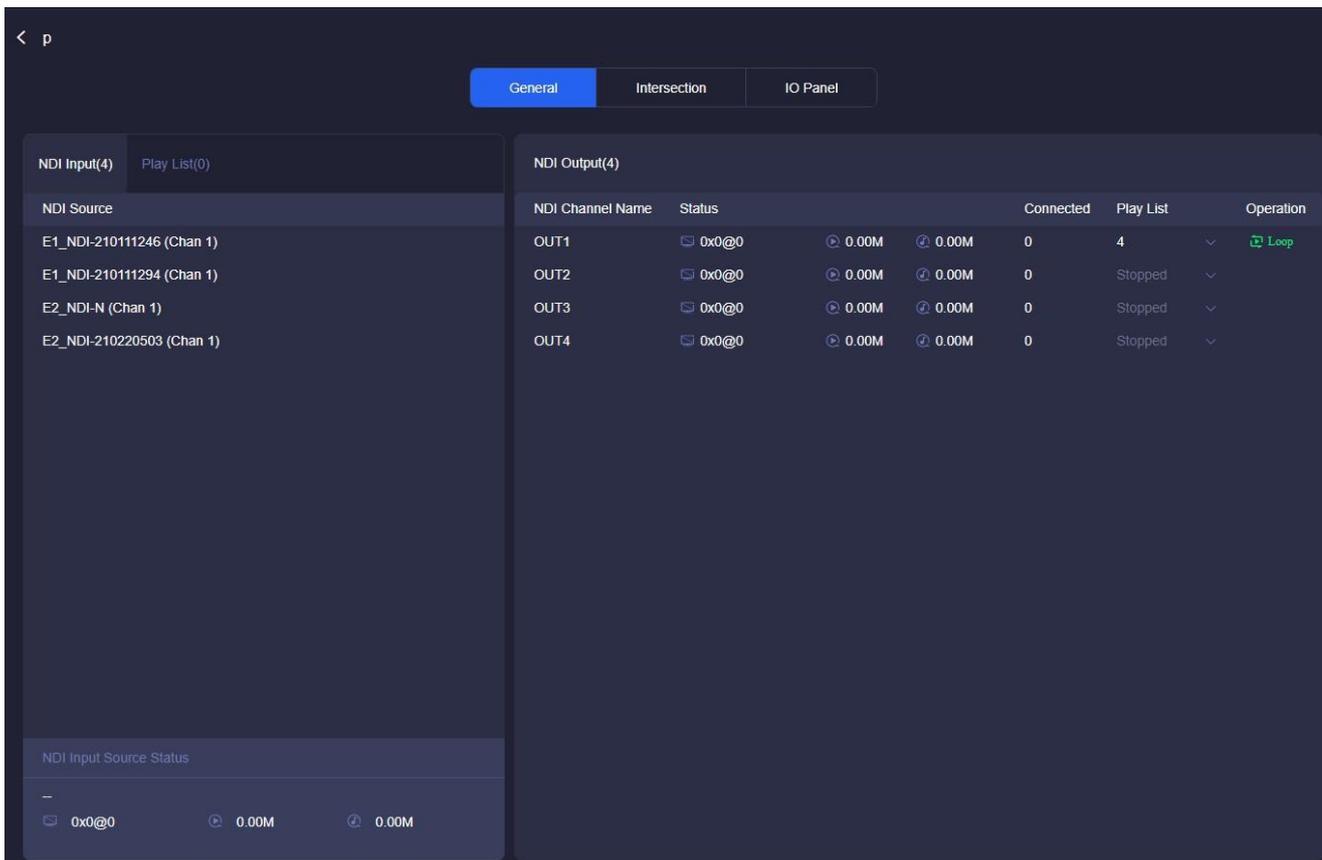
Introduction

- **NDI Input:** Click **+** to select the input video sources that added to the source list in Chapter 3.1.
- **NDI output:** Click **+** to select the output video sources that added to the source list in Chapter 3.2.
- **Alias:** The Alias of the video source can be changed

5.2 Panel Management

Enter the panel created, click "General" to check the information of the NDI input and output and the status and the configuration of the play list.

Intersection and IO Panel are two different styles of operation panel with same function, you can choose the one you like. You can configure and switch the NDI input and output, and configure the play list of the NDI output.



① NDI Input Source Status

Select the video source and the information status of the source will be displayed at the bottom.



Introduction

-  : The resolution and frame rate of the source
-  : The real-time bit rate of the video encoding
-  : The real-time bit rate of the audio encoding

② NDI Output

The NDI output channel created when the panel is added, if there is a device at the back end to pull a certain output, the output status will display the decoded resolution, frame rate, video and audio bitrate.

NDI Output(4)						
NDI Channel Name	Status	Connected	Play List	Operation		
Out1	1920x1080@30	5.58M	6.00M	0	轮播2	Loop
Out2	0x0@0	0.00M	0.00M	0	轮播	
Out3	0x0@0	0.00M	0.00M	0	轮播2	
Out4	0x0@0	0.00M	0.00M	0	Stop	



Introduction

- **Connected:** The number of the back-end streams have been decoded by the NDI output channel.
- **Play list:** Click the down button to select the play list. When you want to change, please stop the current one first. Please refer to the "Play List" chapter for more details.
- **Operation:** Set the mode of the play list to "Loop" or "Single" play. After the end of a single play list, the loop playback will continue to play the last NDI source by default; after the loop is played to the end of the last NDI source, it will return to the first NDI source to continue the loop play.

③ Play List (Only available with NDI Core Pro version)

When the NDI output channel selects "Loop", all the NDI input video sources in the list will be displayed. A circle of time progress status will appear on the right side of the video source.

NDI Input(4)		Play List(4)	
Order	NDI Source		
1	N3-2 (Channel-1)		Progress Circle
2	N3-20072620197 (Channel-1)		
3	N30-21162520033 (Channel-1)		
4	N30 (Channel-1)		



Introduction

- The play list is used to establish an automatic switching relationship between input and output. According to the set time, the output channel automatically switches to different NDI sources.
- The play list consists of multiple NDI sources and playing time
- NDI sources can be added repeatedly, and the playback time is as low as seconds.

④ Intersection Crosspoint and IO Panel

Configure the NDI input and output by the intersection. The green square indicates that the NDI input sources will output from the NDI output channels.



Introduction

One NDI input source can be copied to multiple NDI channels outputs.

- : Select and stop the play list
- : Under the unlocked state, the NDI video source of multiple outputs can be switched. When in the locked state, the NDI output channel cannot be manually switched. When the output channel is used by multiple control panels, the NDI output can be switched on any panel. To prevent misoperation, you can use the locked state.
- The play list selected by the NDI output channel, and the NDI video sources played will show the current playing time.
- The functions of the IO panel are the same as the intersection.

6 Output Play



Download Kiloview Multiview for free

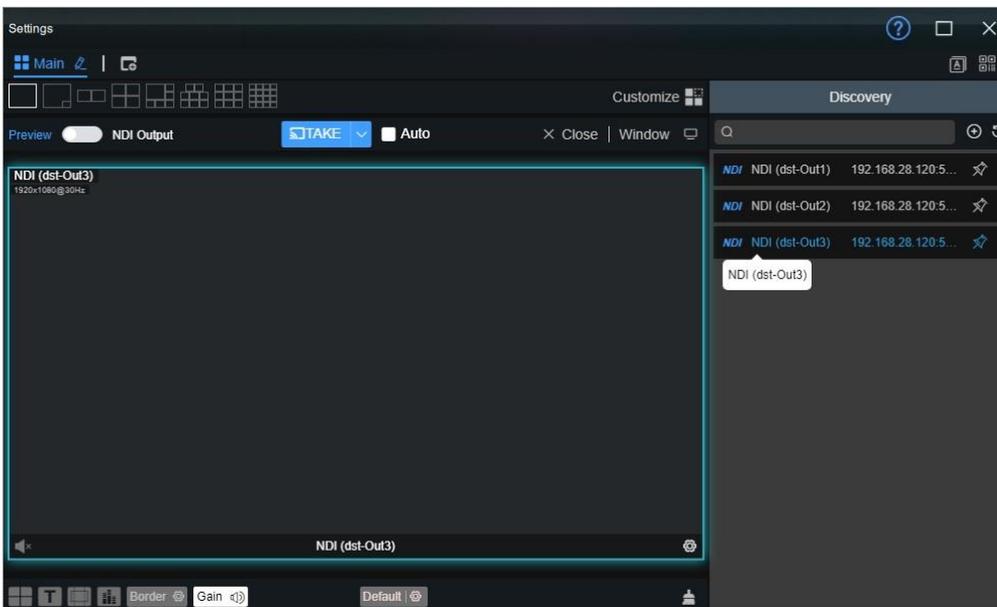
Visit the website <https://www.kiloview.com/en/ndi/multiview>, click "Get it now" to download Multiview, and install the software step by step.

Kiloview Multiview is a free NDI video discovery, management and multi-screen monitoring software.

Step 1: Enter the management page of Kiloview Multiview Player



Step 2: Find the NDI channel output by the NDI Core in the “Discovery”



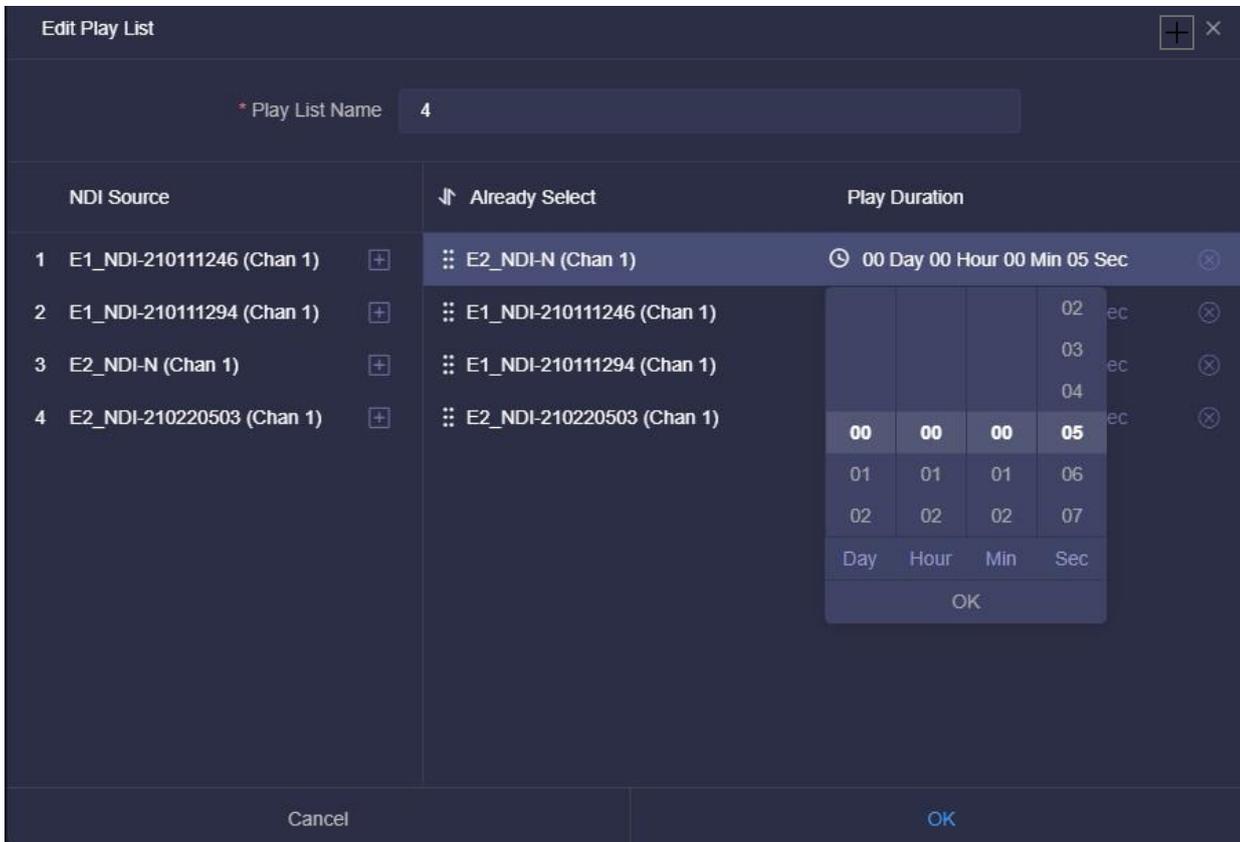
Introduction

The rules for the name of the output NDI streaming from NDI Core: NDI (dst-channel name) , the channel name was created in chapter 4.2

7 Play List (Only available with NDI Core Pro version)

According to actual needs, the input videos are played under Loop mode. You can configure the playback time and sequence of each video source.

Click "Play List"->"Add Play List" to create a play list. Click  to add the NDI source that needs to be played into the play list.



Introduction

The NDI video source can be added to the play list many times, click  before the NDI source under the "Already Select" to sort the NDI sources.

- **Play Duration:** Configure the playing time of the NDI source, it will automatically skip to the next NDI source if the playing time ends.
- If the play list is being used, please stop it first and then modify it.
- The same play list can be used by multiple NDI output channels at the same time.

8 Network Status

Name	Type	Tx/s	Rx/s	Tx	Rx
eno1	1000M	87.05Kbps	1.93Mbps	260.39Gbps	803.44Gbps



Introduction

Please see Chapter 3.1 for details.

9 User Management

In user management, you can add new users and modify and delete existing users. There is an admin account by default.

Add User
✕

* **User name**

* **Alias**

* **New password**

* **Confirm password**

Cancel
OK



Introduction

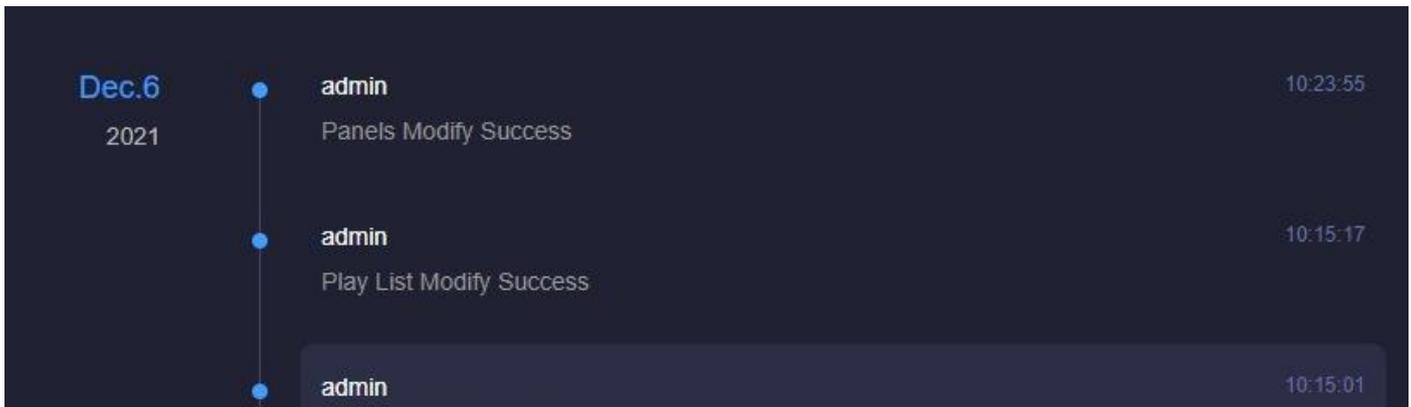
- **Management account:** The management account is admin, it can modify and delete all accounts.
- **Ordinary users:** Ordinary users can only change their own password and all configurations under their account.
- All accounts can only see the configuration of the control panel, input, output and play list created by themselves.

10 Log



Introduction

Please see Chapter 3.4 for details.



Dec.6 2021	admin Panels Modify Success	10:23:55
	admin Play List Modify Success	10:15:17
	admin	10:15:01

For more questions, please contact us via :

<https://www.kiloview.com/en/support>



Please scan with browser.

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