



User Manual

NDI Core

NDI Series

KILOVIEW NDI Core is a centralized system for your NDI sources to Control, Organize, Route and everything. With it, you can manage signal sources from dozens to thousands and building smooth and seamless switching channels for those signal sources. With it, you can manage signal sources from dozens to thousands and build smooth and seamless switching for all signal sources. It supports various formats of NDI stream input, switches, copy, and output. Also, server hot standby, customized playlist, log, and user management are supported.



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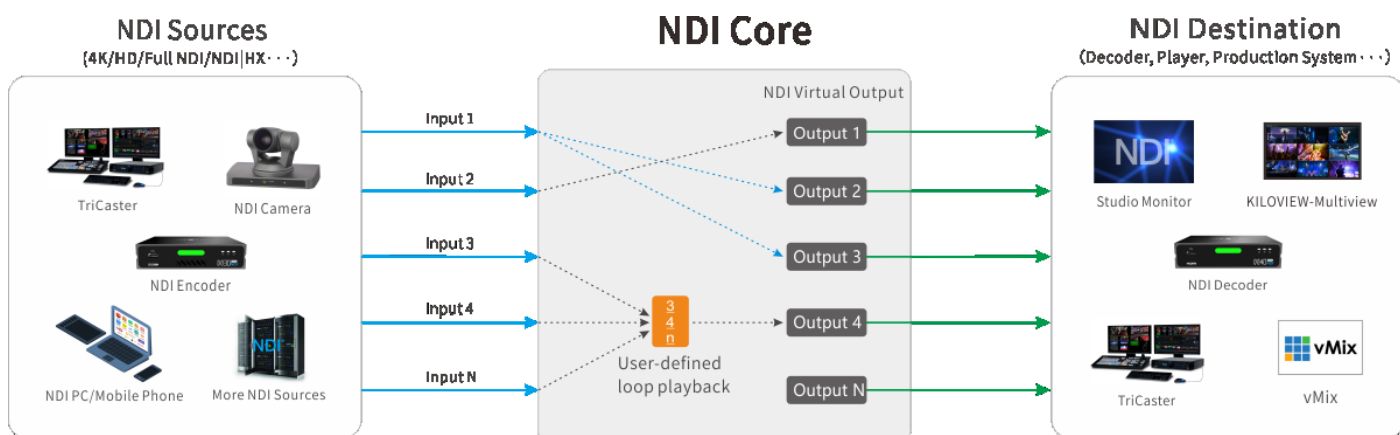


1 NDI Core Introduction



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.

- 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 Core. 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.

KILOVIEW®

NDI Core

admin

.....

Login

**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**

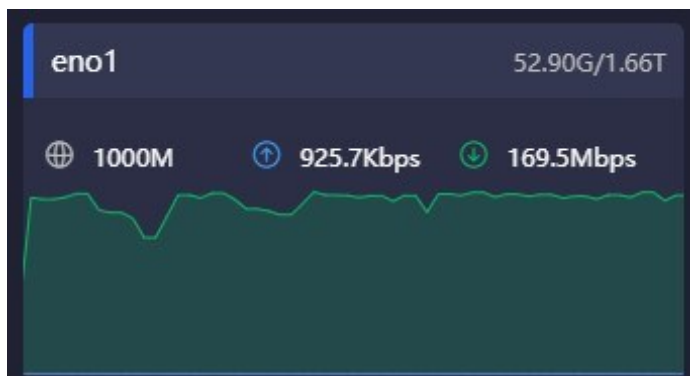
<https://www.kiloview.com/en/support/docs/kiloview-ndi-core-server-deployment-guide/kiloview-ndi-core-server-deployment-guide/>

3 Dashboard

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

3.1 Network status

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

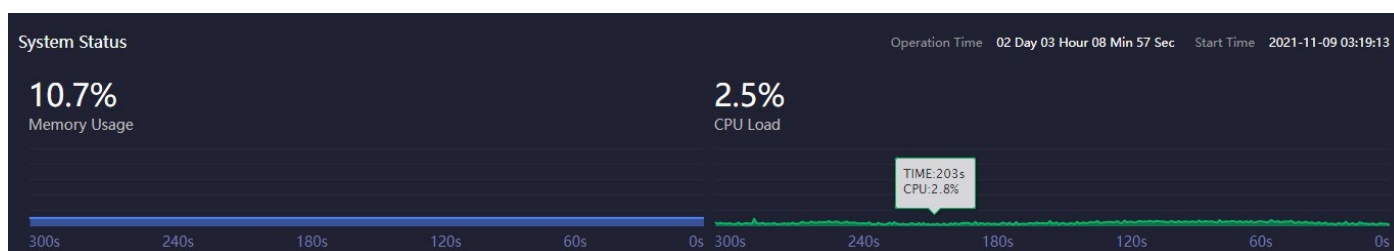




Introduction

- **eno1**: Core the name of the network card on the Core server.
- **52.90G/1.66T**: 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

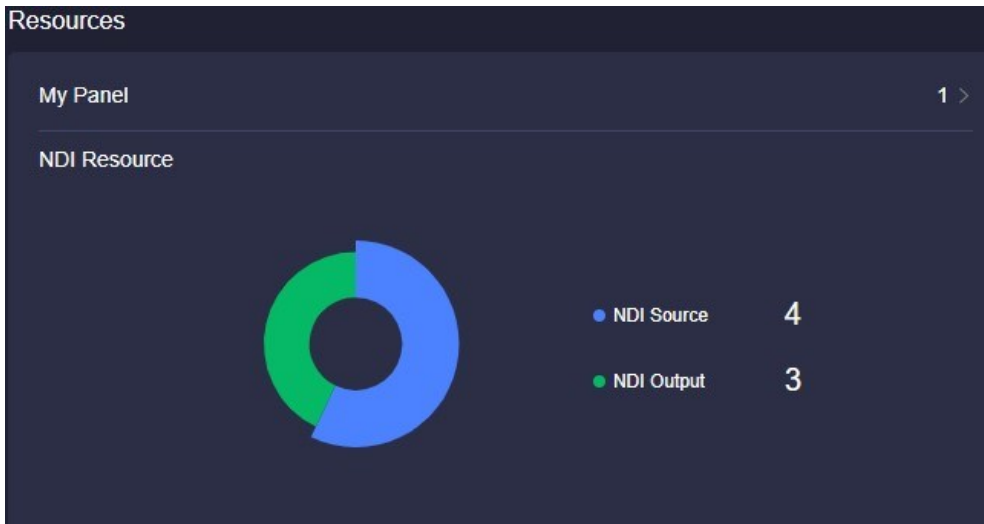
When the system memory and CPU are too high, please confirm whether the performance of the NDI Core device is insufficient due to a large number of transmissions. You may need to update your hardware system.

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**: 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, outputs of NDI Core and panel.

- **Total NDI input:** All added NDI video sources are counted, not including those listed but not added.
- **Total NDI output:** All NDI output sources created by users.
- **My Panel:** The numbers of 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.

Log More >

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

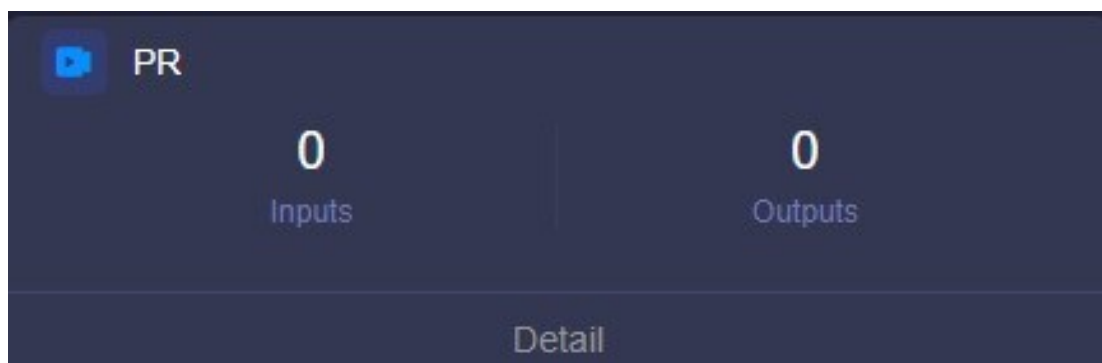


4 Panel Control

Click "Panel Control" to create a control panel, configure the NDI input and output. Add and manage the NDI input and output, and configure the NDI input source and output associatively, and provide cross-switching options.

4.1 Add panel

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



Click the panel on the left navigation bar or enter the current panel management interface through the panel "Detail". The NDI input and manage are on the left side of the "General", the right is the NDI output and manage.



Introduction

- **Inputs:** NDI input source added under current panel.
- **Outputs:** Numbers of NDI output panel created under current panel
- NDI output channels cannot be shared between different panels, and the same video source can be added to the NDI input



4.2 NDI input

Click "Manage" in the right, dialog box will pop up after clicking "add input" .

- ① All NDI sources under the same network segment will be automatically discovered and displayed through "public auto discovery" . Select the NDI video source that needs to be added and saved.

NDI Source	NDI Group	Device IP
<input type="checkbox"/> CAM1 (SDI)	public	192.168.28.14
<input type="checkbox"/> E1_ND7777 (Chan 1)	public	192.168.28.17
<input type="checkbox"/> E2_NDI-%N (Chan 1)	public	192.168.100.5
<input type="checkbox"/> E2_NDI-210220503 (Chan 1)	public	192.168.28.26
<input type="checkbox"/> MG-00000000 (333_channel)	public	192.168.28.80

- ② When the NDI source is in a different NDI group under the same network segment, click ⁺ to enter the source configuration, and select "Auto" . It will automatically discover all the NDI sources of the current group after entering the name of the group.

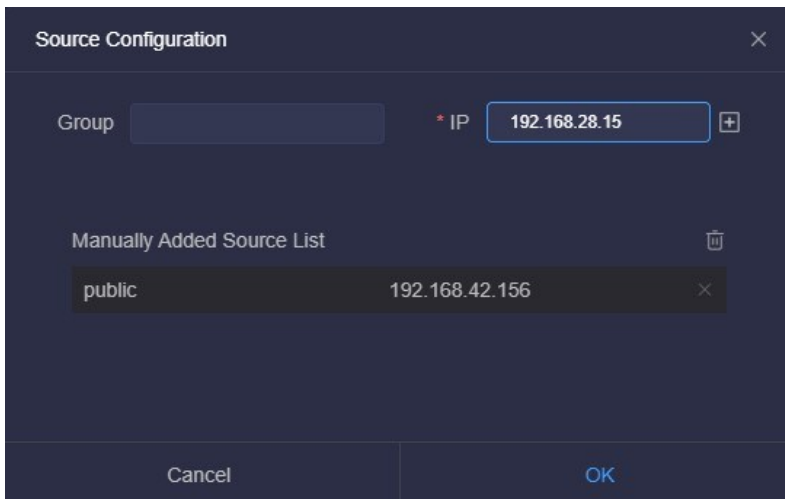
Source Configuration

Discovery method: Auto

* Group: ABC

Cancel OK


- ③ When the NDI source cannot be automatically discovered, such as the NDI source is in the same LAN but across network segments, the NDI source can be added manually by adding IP.



The screenshot shows a 'Source Configuration' dialog box with a dark blue background. At the top, there is a title bar with 'Source Configuration' and a close button. Below the title bar, there are two input fields: 'Group' (empty) and '* IP' (containing '192.168.28.15'). To the right of the IP field is a plus sign icon. Below these fields is a section titled 'Manually Added Source List' with a trash icon. This list contains one entry: 'public' with the IP address '192.168.42.156' and a close button. At the bottom of the dialog are 'Cancel' and 'OK' buttons.

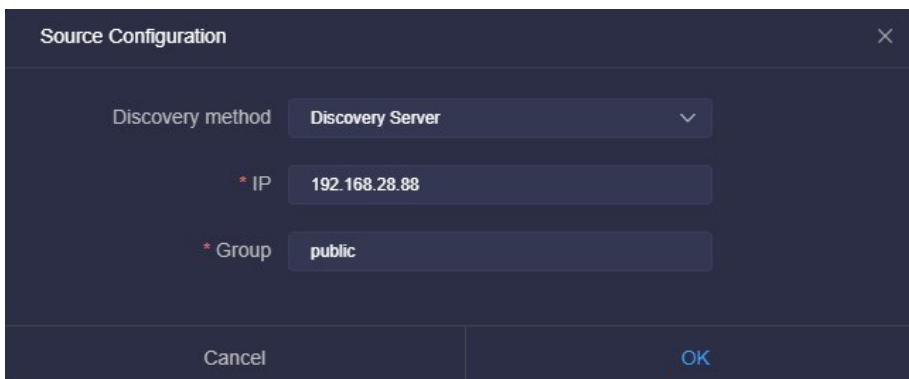


Introduction

- **Group:** The group name of the NDI video source. Default is public.
- **IP:** Fill in the IP address of the NDI source, click "enter" or  in the right to add the IP address to the address list.

④ Discovery server

When the NDI source is registered to the discovery server and the automatic discovery is replaced, the addition at this time also needs to be registered to the discovery server. Enter the source configuration by the button, select "Discover server", and fill in the same discovery server address and group as the NDI source.



The screenshot shows a 'Source Configuration' dialog box with a dark blue background. At the top, there is a title bar with 'Source Configuration' and a close button. Below the title bar, there is a 'Discovery method' dropdown menu set to 'Discovery Server'. Below this are two input fields: '* IP' (containing '192.168.28.88') and '* Group' (containing 'public'). At the bottom of the dialog are 'Cancel' and 'OK' buttons.



Introduction

- **Group:** The group name of the NDI video source. Default is public group.
- **IP:** The IP address of the discovery server registered by NDI.

The NDI input source added and saved by the above method will be displayed on the left of the NDI input box, and the associated NDI output can be used in the cross panel.

NDI Input(5) Manage		
NDI Source	IP Address	Status
DESKTOP-T273MB2 (Intel(R) UHD Graphics 630...	192.168.35.108	Available
DESKTOP-7T0CUHF (Intel(R) UHD Graphics 63...	192.168.42.156	Available
DESKTOP-7T0CUHF (Intel(R) UHD Graphics 63...	192.168.42.156	Available
DESKTOP-7T0CUHF (WeCam)	192.168.42.156	Available
N30-21162520033 (Channel-1)	192.168.28.15	Official Equipment



Introduction

Status: "Official equipment" means that the NDI video source comes from NewTek and Kiloview NDI equipment or software; "available" means unofficial equipment, which can be used to connect to NDI output; "exceeding authority" means unofficial equipment that exceeds the output of the highest video source, the basic version adds unofficial devices only to support 16 video sources, and those with more than 16 added will not be available.

Select the corresponding NDI source and display the information status of the NDI input source at the bottom.




NDI Input Source Status

E1_NDI-210111294 (Chan 1)

✉ 1920x1080@59
🔄 2.09M
🔊 0.15M



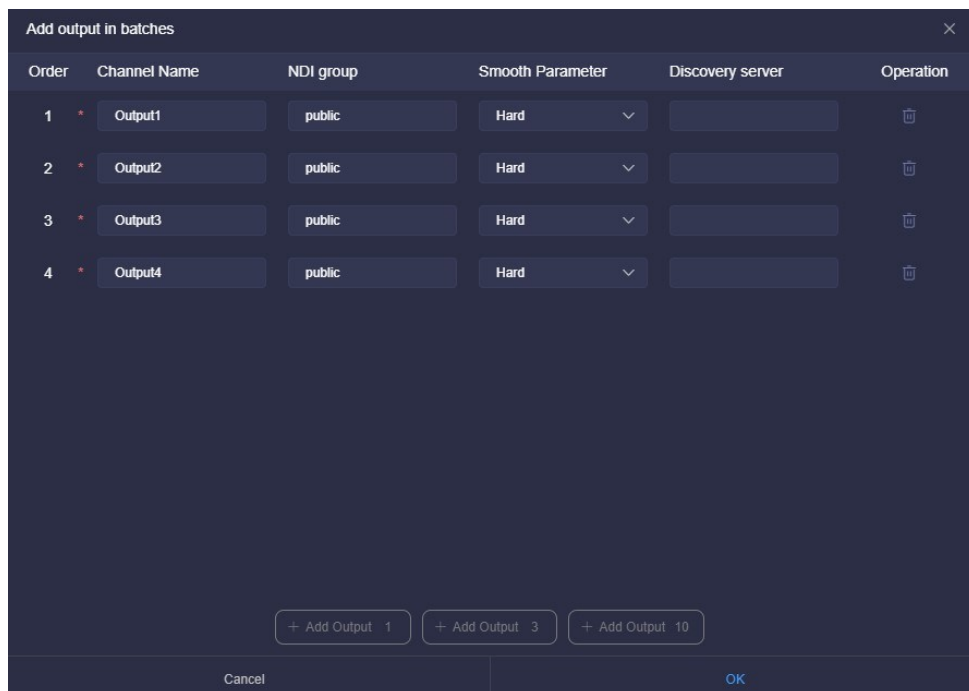
Introduction

-  : Display resolution and framerate of the NDI video source.
-  : The real-time bit rate of the video encoding.
-  : The real-time bit rate of the audio encoding.

4.3 Create NDI Output

Create NDI virtual output, control the association of NDI input source and NDI output through the cross panel, either single NDI input to multiple NDI channels output, or one NDI output switching to different NDI streams.

To create NDI output channel through “General” and click “Manage” button. Click “Add output” in the dialog, it will pop up the dialog of batches adding.





Note

- **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. When there are multiple control panels, panels can share the same output channel, if the output is not locked on any panel, you can switch and do other operations.
- **NDI Group:** Assign NDI output to the specific name' s group. Default is public group. The group name can be a combination of English letters, numbers, and special symbols. It supports sending data to multiple groups, and please use commas to separate groups.
- **Smooth Parameter:** 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.
- **Discovery server:** Fill in the IP address of the discovery server, and register the NDI output to the corresponding discovery server. The receiving end also needs to register to the same discovery server to discover the stream.
- **Add output 1:** Click "Add output" according to the corresponding number, if you click "Add output 10" , then 10 NDI output channels will be automatically added.

When there is a device at the back end to pull a certain output, the created NDI output channel will display the decoded resolution, frame rate, video and audio bitrate.

NDI Output(5) Manage				
NDI Channel Name	Status			Connected
Output3	0x0@0	0.00M	0.00M	0
Output8	0x0@0	0.00M	0.00M	0
Output9	0x0@0	0.00M	0.00M	0
Output10	0x0@0	0.00M	0.00M	0
Output11	0x0@0	0.00M	0.00M	0



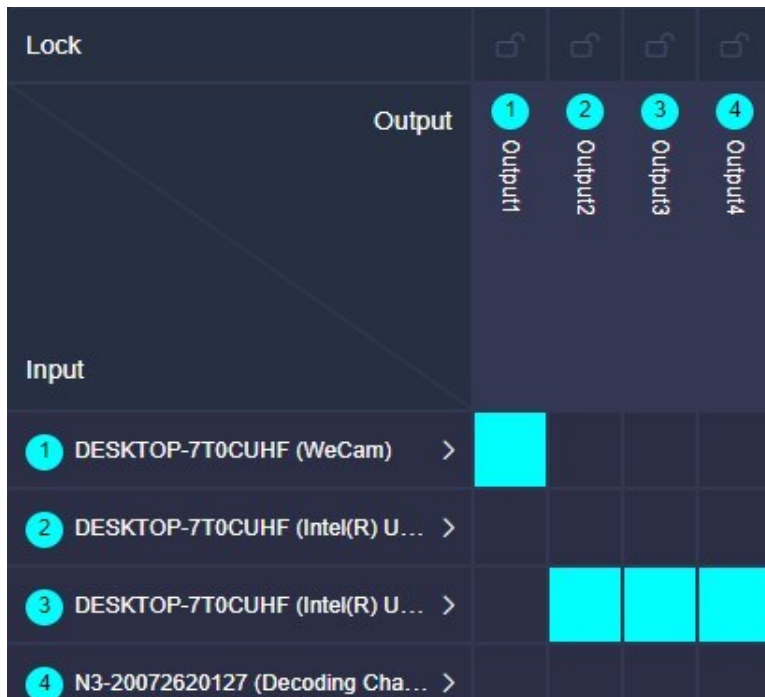
Introduction

- : Display resolution and framerate.
- : The real-time bitrate of the video encoding.
- : The real-time bitrate of the audio encoding.
- Connection numbers: Shows how many back-end streams have been decoded by the current NDI output channel.




4.4 Establish NDI input and output relations through "Cross-point"

Configure the NDI input and output associatively through the cross-point panel. The cyan square indicates that the corresponding NDI input and output channel.



Introduction

- For one NDI input source, you can copy to multiple NDI output channels.
- : Under the unlocked state, you can switch among multiple NDI sources. When in the locked state, the corresponding NDI output channel cannot be manually switched.



5 Output Play



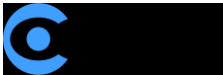
Download Kiloview Multiview for free

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

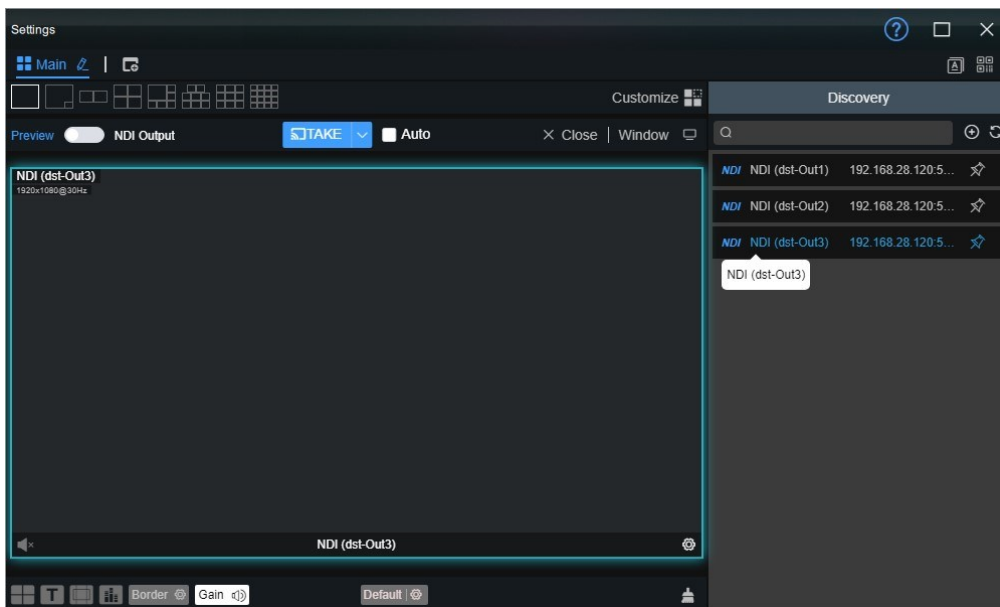
Kiloview Multiview is a free NDI video discovery, management and multi-screen monitoring software.

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 4.3.3

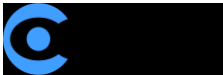
6 Network Status

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.



7 User Management

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

The screenshot shows a dark-themed dialog box titled "Add User" with a close button (X) in the top right corner. It contains four input fields, each with a red asterisk indicating a required field and a "Please enter" placeholder:

- * User name
- * Alias
- * New password
- * Confirm password

At the bottom of the dialog, there are two buttons: "Cancel" on the left and "OK" on the right.



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.

8 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



9 To activate your NDI Core

After your 15-day free trial, go to the top right of NDI Core page, click “Trial Period 15 Days” to authorize service.

1. Copy your “Device Code” and send it to your sales consultant, or go to our distributors for license.
2. Our sales consultant or distributors will send you the authorization code to activate NDI Core.
3. Fill the code and once confirmed, your NDI Core will unlock to the full version.

Note:

1. Authorization code of Basic and Pro version are different. Please inform your NDI Core version before purchasing license.
 2. Your “Authorization Code” is a unique match to your “Device Code” . If you change your server CPU or installing another NDI Core, you will need to provide a new “Device Code” and purchase a new License for authorization.
-

For more questions, please contact us via :

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



Please scan with browser.

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