

# **NSCaster X2**

**User Manual** 

**REV 2.2** 

www.Nagasoftsales.com

Copyright © 2006-2022 NANJING NAGASOFT CORPORATION All rights reserved

## **Table of Contents**

1 HARDWARE SPECIFICATION	1
1.1 LIST ACCESSORIES	1
1.2 Device Parameters	
1.3 MODEL	
1.4 INTERFACE DIAGRAM	2
1.4.1 Back Interface	
1.4.2 Side Interface	3
2 SOFTWARE FEATURES	3
2.1 NSCASTER-X2 MAIN INTERFACE	3
2.1.1 PVW and PGM	4
2.1.2 HDMI Channel	4
2.1.3 NET Channel	5
2.1.4 DDR Channel	8
2.1.5 Image Overlay	9
2.1.6 PIP (Picture in Picture)	
2.1.7 Scoreboard	12
2.1.8 Audio Mixer	13
2.1.9 Subtitle	13
2.1.10 CG	15
2.1.11 PTZ control	17
2.1.12 Special Effects	18
2.1.13 Chroma key	18
2.2 NSCASTER-X2 SETTINGS INTERFACE	19
2.2.1 Project	19
2.2.2 Recording	21
2.2.3 Streaming	21
2.2.4 Output	23
2.2.5 Network	24
2.2.6 Audio Settings	26
2.2.7 OSD Settings	27
2.2.8 File Transfer	28
2.2.9 General Settings	30
2.2.10 About	32

## **1** Hardware Specification

## **1.1 List Accessories**

Name/Model	Package	Specification	Number of Pieces	Actual Quantity	Remarks
Main device	Aluminum box packaging	NSCasterX2	1	1	
Power supply and power cord	Aluminum box packaging	Standard	1	1	
5G antenna	Aluminum box packaging	Standard	4	4	Standard Version
Warranty card certificate	Aluminum box packaging	Nagasoft Custom	1	1	

## **1.2 Device Parameters**

Device Item Name	Description
Chassis	Portable case, built-in with 13.3-inch high-definition touch screen
Dimensions	323mm*203mm*62mm (W x H x D)
Weight	1.75KG
Powered by	DC 19V
Transport box	Aluminium box packaging
Operating temperature	-10-50°C
Storage temperature	-20-70°C
Operating humidity	10~90% no condensation
Impact resistance	15g
Vibration resistance	10-100Hz 1.25g
Altitude	Below 4000 meters

## 1.3 Model



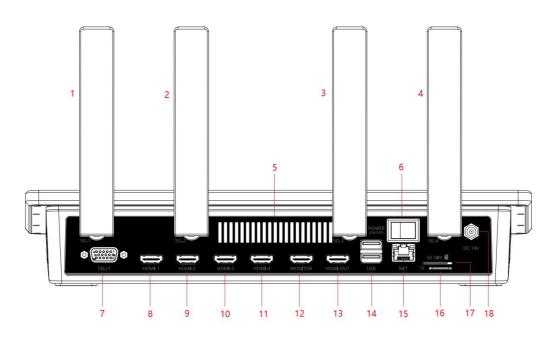
Front side



Back side

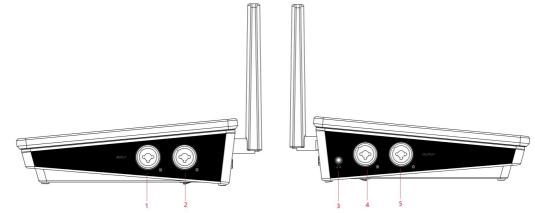
## 1.4 Interface Diagram

### 1.4.1 Back Interface



1	5G antenna	7	TALLY	13	HDMI PGM Output
2	5G antenna	8	HDMI-1 Input	14	USB2.0/3.0
3	5G antenna	9	HDMI-2 Input	15	Gigabit Ethernet port
4	5G antenna	10	HDMI-3 Input	16	TF card port
5	Cooling outlet	11	HDMI-4 Input	17	5G SIM port
6	Switch	12	HDMI Display interface	18	Power supply (DC 19V)

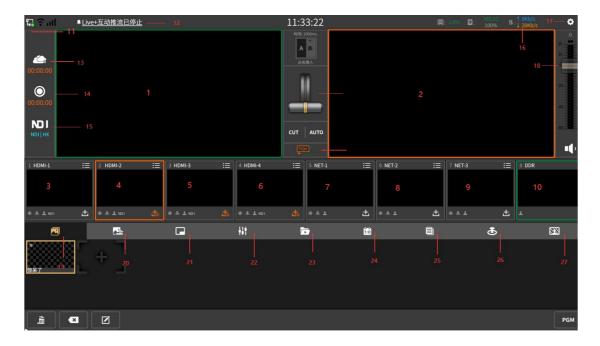
#### 1.4.2 Side Interface



1	XLR/TRS balanced input L	4	XLR/TRS balanced output L
2	XLR/TRS balanced input R	5	XLR/TRS balanced output R
3	3.5mm monitor		

## 2 Software Features

## 2.1 NSCaster-X2 Main Interface



NO	Name	NO	Name
1	PVW	17	Settings button
2	PGM	18	Tuning control for total mix output
3-6	HDMI input channel	19	Image overlay
7-9	NET input channel	20	CG
10	DDR display channel	21	PIP (Picture in picture)
11	Network status display	22	Audio mixer
12	Log info	23	DDR local video play
13	Streaming control	24	Scoreboard
14	Recording control	25	Subtitle
15	NDI output control	26	PTZ control
16	Resource usage monitoring status	27	Chroma key

#### 2.1.1 PVW and PGM

NSCaster X2 support video and audio signal in channel PGM and PVW



**PGM channel**: Orange channel is PGM channel, it monitors the screen that being broadcast. **PVW channel**: Green channel is PVW channel, it monitors the screen that will be broadcast.

#### 2.1.2 HDMI Channel

In addition to access to HDMI cameras or other HDMI interface devices, the first four channels can also be connected to IP cameras, Live+ devices, and network streams. Click the + icon to pop up the settings interface, as described in detail below:

**Physical Input** 

Load the video and audio signals of the input interface into the corresponding channels, as shown in the following figure:

<mark>に</mark> ?all	NDI HX ONLY OUTPL	JT 30 MINUTES IN TR	RIAL VERSION.	10:5	51:23		Q: 0.9% 🙎	280.3G 100%	1↓: <mark>↑ 0Kb/s</mark> ↓ 2Kb/s	٥
00:00:00				A	iource Type					
00:00:00 NDI   HX		Phy Input	IP Camera	Live+ Device	Netstream	SRT	NDI HX			-2020 -4040 -6060
1 HDMI-1	:≡ 2 HDMI-2	HDMI-1		HDMI-2	НДМІ-З		HDMI-4		i≡ ® DDR	•••
								Ł		<u>878</u>
Arrest		Back			🗸 ок					
	× 2									PGM

#### 2.1.3 NET Channel

The NET channel is used to load network streams and the supported formats are: rtmp/rtsp. You can also directly load IP cameras, Live+ devices, NDI|HX.

1) Select the added IP camera in the list, click the " $\sqrt{}$ " icon to confirm the selection, the setting interface is as shown in the figure below:



Click Add button or button to enter the IP Camera add / edit interface to configure or modify the IP camera information, as shown in the following figure:

ដ្ឋា ទ	NDIHX ONLY OUTF	PUT 30 MINUTES IN T	RIAL VERSION.	16:10:10		<b>Q</b> :	1.8% 2: 200 3G 1.00%	1↓: <mark>↑ 352Kb/s</mark> 1↓: ↓ 9Mb/s	٥
<u> </u>	115	Company of the	14 Ja	IP Camera Config		in lega	Aller hade	<b>.</b>	20 -6 20 - 20 10 - 10
00:00:00	-	Name						1	20 20
00:00:00		Address							40.2.40
			×					7	40 40
		Onvif Control							•
1 SDI-1	1 2 SDI-2	PTZ Protocol	ONVIF	VISCA over IP (raw)	VISCA ove	r IP		E 8 DDR	
		Transport Protocol	TCP						
⊕ & <b>⊥</b> ND1	± 101				ort			± +	
	<u></u>	Device name					\$	-1	22
A	A	User		Passwo	rd	۲		A	
P FULL	PIP	➡ Back		🗸 ок			,BB-01	EX	T01
A 1 SDI-1	В	c		D	Z				PGM

2) You can use the VJMobileCast app to access the mobile screen, both internal and external networks can be accessed.

The access signal can be accessed through the APP directly by scanning the QR code or entering the ID number. The access signal is displayed in the "Device List", click to select the signal screen that needs to be loaded to the mobile terminal. (Note: The original ID is unavailable after resetting the ID, you need to re-scan the new ID)

ង្គាំ	Live+ interaction st	reaming was started		16:14:31			(); <u>3.18</u> ();	280.35 100%	II: <mark>↓ 344Kb/s</mark> ↓ 9Mb/s	٠
	1 Kerta	Contraction of the second	tron	Time: 1000ms	a start	2	and a second			20 20 10 10 10
00:00:00			Ch	annel Source Typ	e				The of 1	
0		IP Camera	Live+ Device	Netstream	SRT		NDI HX			-2020
00:00:00										40.2
NDI HX		[369133] ip7						1		• <b>•</b> •
1 SDI-1	i⊟ 2 SDI-2		×						8 DDR	
⊕ ≛ <b>1</b> NDI	📩 🖲 & 1 NOI					8.730 D		土	T	
	<u>.</u>	29	71630					ځ	[	<u>1</u> 2
							-		1	
A	A .		Director ID to Join			QR Code to Join				
р		<b>D</b> Back			ж				P	
FULL	PIP	PBP	POP	• •	QUARD	PABB	PAI	3B-01	EXT	01
A 1 SDI-1	В	С	D		ľ					PGM

3) Click 🔳 to enter the network stream editing interface, fill in the complete network stream address in the URL, and use the same screen input function to quickly enter the stream address. As shown below:

ង តំពា	₽ <u>Live+ir</u>	nteraction st	reaming was sto	pped	16:15	:17		<b>(2)</b> : 7.9%	280.36 100%	11: <mark>↑ 222Kb/s</mark> ↓ 9Mb/s	٥
			and the	The Part	Time: 100	Roms	A	and the second	the states		20 10 10 10
00:00:00		1000			Channel Sou	urce Type				ne / /	
0		-	IP Camera	Live+ Device	Netstre	am	SRT	NDI HX			-20
00:00:00			rtmp://	192.168.0.208:1936/live/v	vw			8			40
	-			rtmp://192.168.0.208:1936	i/live/ww					12	-60 - 60
8				rtmp://192.168.0.208:1936	i/live/test123						∎ <b>∳</b>
1 SDI-1	1 2	SDI-2		rtmp://192.168.0.208:1936	i/live/test					B DDR	
				rtmp://192.168.0.208:1936	i/live/1234						
● 프 <b>1</b> NDI		5 L NOI		rtmp://192.168.0.208:1936	i/live/123				3		
	<u> 110</u>									5 4	
		<u>.</u>							گ		878
							5 5 C 14				
A							Clear history				
Р			S Back							_   _p	
FULL	Š.	PIP		РВР	РОР	QUARD	PABB		PABB-01	Đ	сто1
A 1 SDI-1		В		с	D						PGM

4) Click to enter the SRT stream editing interface and fill in the required content in turn. Here's what it looks like:

ធ្ល 🤉 📶	NDIHX ONLY OUT	PUT 30 MINUTES	IN TRIAL VERS	ion.	10:58:	33			0.04%	Ø:	200 345 100%	11: 1Kb/s 9Kb/s	٠
00:00:00				12200	Time: 1000n			_					
		IP Camera IF		ve+ Device	Netstream Pc		SRT		NDI HX				-20 20
1 HDMI-1	E 2 HDMI-2					stency				j.		E 8 DDR	•
			Caller tream ID			120 assword							
® 击 ⊥ №1	<u>분</u> ) ® 초 ± ND1							•			i	± ±	
	<b>.</b>					length from 10 to				ļ	₫		878
Arrest	+												
		D Back											
	×												PGM

5) The NDI device in the LAN can be loaded, and it can be discovered automatically by clicking the refresh button, as shown in the following figure:

ង ទ ៣	Live+ interaction st	reaming was stopped		16:23:34		Ø:7.3% Ø	280.36 100% 1	L: <mark>↑ 281Kb/s</mark>
	All a	A CAR	A series	Time: 1000ms	- Mill	A CART		-6 20 0 10
00:00:00				Channel Source Type				
0		IP Camera	Live+ Device	Netstream	SRT	NDI HX		20 - 20
00:00:00		DESKTOP-AUPIR45	NDI CAMERA					4040
	:	OBS Preview	Stream				7.	
1 SDI-1	i≣ 2 SDI-2						II	8 DDR
@ & <b>1</b> ND1	📩 🖲 🕹 🕹 NDI						土	
	<b>P</b>		*				ځ	878
		<b>63</b>						
A P	A	Back		ок			В	A B
FULL	PIP	PBP	POF	P • QI	JARD	PABB P.	\BB-01	EXT01
A 1 SDI-1	В	С	۵ ] [	2	Ø			PGM

Note: This function need extra cost to enable.

#### 2.1.4 DDR Channel

The DDR channel is used to load video footage as shown below:



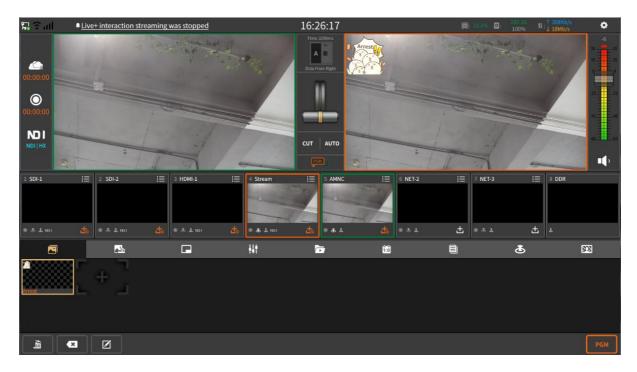
- 1) The button <u>for loading video material is as follows:</u>

  - Button : Add video Button : Play/pause video

- Button 🔛 : Play
- Button 🕶 : Back 10 seconds
- Button 🕨 : Fast forward 10 seconds
- Button **E**: Stop
- Button E C L: Separately, play in list order, play single video loop, play in list loop and play single video
- Button 🧧 : The progress adjustment button is enlarged to adjust the video progress
- Button .: Select video and delete single video
- Button 🛅 : delete local video list
- Rate button: You can control the rate of playback.

#### 2.1.5 Image Overlay

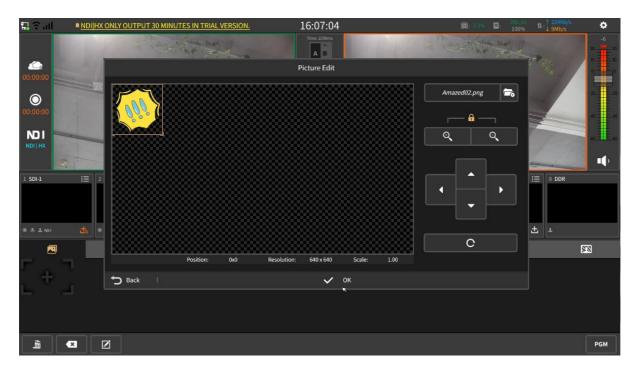
Image overlay panel can publish image to the PGM monitor. It support png/jpg/jpeg/gif image format and location movement of images as shown below:



- Click the button " To enter the photo editing interface, and then click the button " To add a picture. There are two ways to source images:
  - Online download. Click "Download" to download.
  - Customize "My Picture". You can copy the picture to the "My Pictures" folder which located at the "File Transfer" interface as shown below:

ង្គ្រ 🕤 📶	NDI/HX ONLY OUTPUT 30 MINUTES IN TRIAL VERSION.	16:06:31		36 11 : <mark>† 308Kb/s</mark> № 11 : <mark>† 908Kb/s</mark>
00:00:00		Picture Transfer		
© 00:00:00 NDI NDI   HX			B A A A A A A A A A A A A A A A A A A A	
		~	the device	
<b>-</b> -		🗸 ок		
				PGM

- 2) Click to send it to the PGM, and click again to not display.
- 3) Click do enter the photo editing interface. In the picture editing, you can drag and drop the picture manually to adjust the position and size of the picture, as shown below:



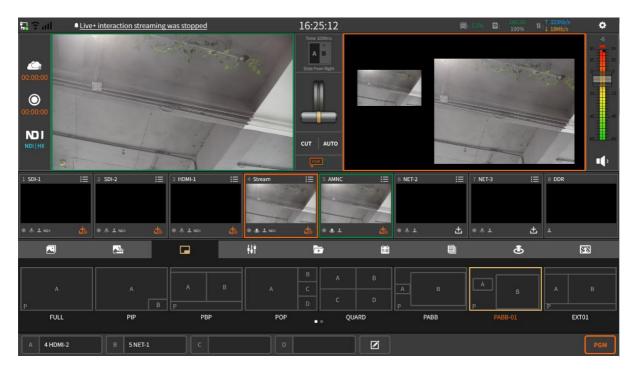
Button operation is as follows:

- Four button : Adjust the position of the picture in the up, down, left, and right directions
- Button 🤦 : Zoom in
- Button 🔍 : Zoom out
- Button C: Restore image to initial state

- Button 🖾: Select picture and delete single picture
- Button 
   Select the image and click to delete the image list

#### 2.1.6 PIP (Picture in Picture)

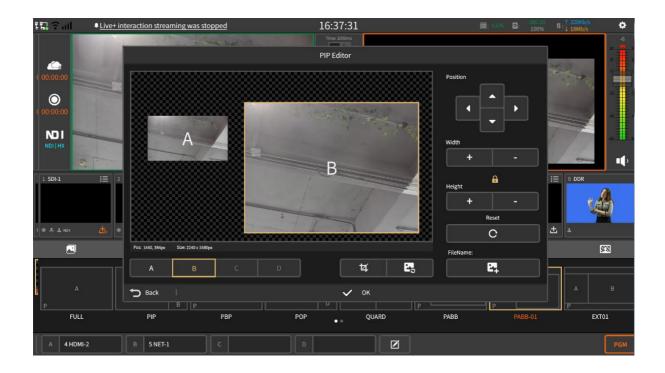
Picture-in-picture can display multiple channels on the PGM channel. Click result to display the selected picture-in-picture mode in the PGM channel, where A/B/C/D represent the screen of the channel. The channel screen of A/B/C/D area on the PGM channel supports real-time switching. The picture-in-picture template is divided into the following two types:



1) No background image template as shown below:

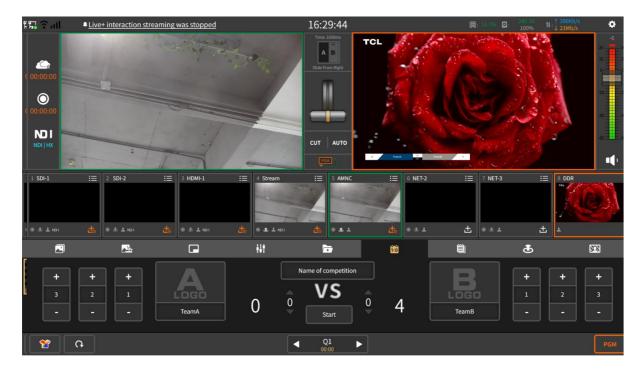
2) Add background image template. The background image is stored in the "picture material" folder of the "file copy" interface. Click the "configuration" button to edit the picture in picture, including changing the background image, stretching and clipping the picture, changing the size and position, and cutting the channel picture freely.

Click on the button to quickly add a background image using a picture fast scan code. You can edit the picture in the picture by changing the background image, stretching and clipping the picture, and changing the size and position, as shown in the following figure:



#### 2.1.7 Scoreboard

The scoreboard can record the score of the live match in real time as shown in the figure below:

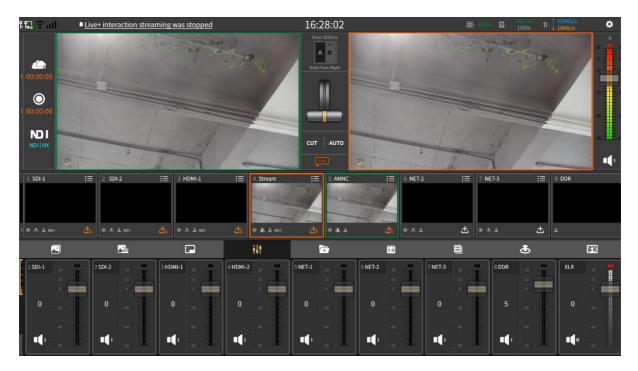


- 1) Button operation is as follows:
  - Button EGUTE: Display the score board to the PGM channel and click again to cancel the display.

Button  ${f \mathfrak{V}}$  : Choose the template of the scoreboard. The templates are general, basketball, football, table tennis, ice hockey and volleyball. You can also select "my scoreboard" to customize the scoreboard. You can import the scoreboard material in "Settings - File copy - Scoreboard material" to use.

#### 2.1.8 Audio Mixer

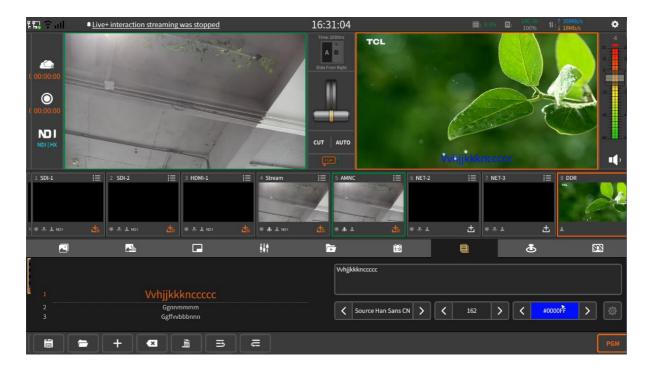
The mixer is used to control the gain and mix of all input and output audio as shown below:



- 1) Button operation is as follow:
  - Button : Mixing output. Button : Mute. •
  - •
  - Button 🛄 : Volume adjustment fader.

#### 2.1.9 Subtitle

You can upload simple subtitles to the PGM by manually inputting subtitles or import txt file. The subtitle panel interface is as shown below:



1) Click to manually enter the subtitles. In the input content, you can adjust the font type, size and use three parameter values as required. The figure is shown below:

ដែរ ទំណ	Live+ interact	tion streaming was stopped	16:31	:41				11:1 - 406Kb/s 11:20Mb/s	۰
			Time: 100 Text edit				1.	TCL	-6
( 00:00:00	-		Input cont	ent					
0		Nnnn					E.		
( 00:00:00							man a		
									•
1 SDI-1	:≣ 2 SDI-2	Font		Size	Color	Speed		B DDR	то
		SimHei		64	#FFFFFF	static		The second	n Pa
(⊛ & <b>⊥</b> ND1	±. ⊛ 3. ±	Source Han Sans CN		66	#C0C0C0		đ		
lah				68	#FF0000				
<b>N</b>	4			70	#009F3C		తి	<u>2</u> 2	
						Loop			
1		S Back	Ň	🗸 ок					
2 3		Ggnnmmmm Ggffvvbbbnnn	l	< Source Ha	nn Sans CN 💙 🔇 🤇	162	< #	0000FF >	
	+							Ľ	PGM

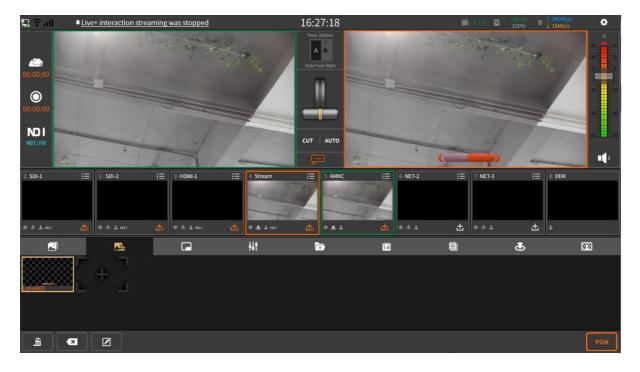
- 2) Click 🛅 button to export the subtitles
- 3) Click 🖻 button to Import txt file
- 4) Click button to delete the selected subtitle.
- 5) Click to clear all the subtitles
- 6) Click  $\blacksquare$  to move up the selected subtitle
- 7) Click 💳 to move down the selected subtitle

8) Subtitle editing: select the subtitle to be edited, and directly modify the text content, font type, size and color in the right text box, as shown in the following figure:



#### 2.1.10 CG

CG is a template composed of pictures, texts, etc. It can be used during live broadcast or recording. The interface is as shown below:



- Click to create CG.
- Click 💶 to delete single CG
- Click do edit the selected CG.
- Click to delete all CG list.

In the CG editing interface, you can choose to add CG template/picture/subtitle, you can manually adjust the parameters of each element including size, position, etc. The editing interface is shown below:

ង្ហ 🖓 📶	₽ <u>NDI HX</u>	ONLY OUTPUT 30	MINUTES IN TR	RIAL VERSION.		)8:34	<b>D</b> : 2	1007	6 11:1 281Kb/s 6 11:1 9Mb/s	٥
	C. See		articles a		CG	1000ms Edit	download NSCGEdi	tor A		20
00:00:00							Label002	<b>7</b>	14	
00:00:00										
	-						Q 	م 		40
1 SDI-1	e i≡ 2								E B DDR	••
⊕ 3. <b>1</b> . ND I	• 🚵			{{TUe}	) ({Name})		<b>¢</b>	С	土 王	
			Position	:	Resolution:	Scale:				878 878
F +				<b>T</b>	Ţ	ļ				
	-	S Back				V ŐK				
, at	× [	Z								PGM

There are several ways to add CG templates:

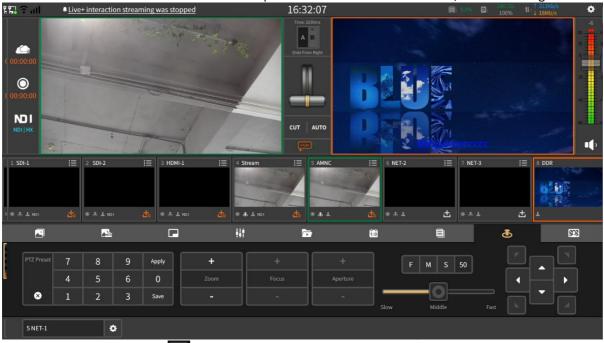
1) Click "download" to use;

2) Import custom material in "Settings - File - File copy - CG material". You can use custom template in "My CG".

3) Click the QR code at the top right of the CG editor to download the CG editor NSCGEditor, and start the remote CG in "setting -Overlay - Remote" to realize online CG, as shown in the following figure:

¶⊒ ? all	IHX ONLY OUTPUT 30 M	INUTES IN TRIAL VE	<u>rsion.</u> 16:08	3:59	Q: 14	210,30 100%	1∔: <mark>↓ 314Kb/s</mark>
00:00:00			Time J		download NSCGEditor		
00:00:00			NSCGEditor D	ownload	а - Г	Q,	20
NDI HX	2		NSCGEditor is an external CG edi function is more powerful and com Scan the QR code to download and Link: http://cdn.nagasoft.cn/downloa en-x64.exe	venient. It can remotely publish C I install it on Windows system.	CG to NSCaster X2.	•	
**************************************		Back Position:	((Title)) ((Name)) Resolution:	✓ OK Scale:	•	c	土 上 [13]
[ + ]		T	T	<u>څ</u>			
	D Back			🗸 ок			
	Ø						PGM

### 2.1.11 PTZ control



Select a channel to load the IP camera or NDI | HX device to control the camera, as shown in figure:

1) PTZ protocol: Click the button to turn on the PTZ control interface to set up the PTZ protocol and the PTZ transfer. Here's what it looks like:

۴ <b>۴</b>	? all	₽ <u>Live</u>	+ interacti	ion stream	ning was :	stoppec	la.		16:3	5:43				<b>@</b> : 79	0 <b>2</b> :	280.3G 100%	11: 1341Kb	/s 🗘
0 00	©			11 2		A CONTRACTOR			Slide Fro	B m Right				6				4 * 111 114 * 12 114 * 12 114 * 12 114 * 12 114 * 12 114 * 12 114
	1:00:00			1		Onvif Control PTZ Protocol ansport	ONVIF	TCP	VISCA over IF (raw)	, ,	VISCA over		NDI					
	SDI-1	:=	2 SDI-2			Protocol		(Jels							:T-3	:	≡ 8 DDR	
						IP	192.168.0.145				Port	80						
	志 上 ND1	古	@ & 1 NO	a		Device name	AMNC								T	-	5 ×	
						User	admin				Password	•••••		▶		ð		<b>8</b> 78
F																	n 🗔	
		7	8	9	Ĵ Ba	ck				<b>~</b> (	ок							
L		4	5	6	0											4		<b>b</b>
	8	1	2	3	Save							Slow	—О Middl	) <u>—</u>	Fast		īĽ	
r												SIOW	Middl				J	
l	5 NET-1		*	<b>Q</b> r.														

Note: the IP camera must correctly input IP address, port, user and password of the camera to control. The NDI protocol must be enabled in the device information interface in settings then NDI | HX can be used.

2) Preset position: set the camera's preset position by entering a number and then saving it. Enter the saved preset, and then call.

3) Zoom: Click on the + button above to zoom in. Click on the - zoom button below to zoom out.

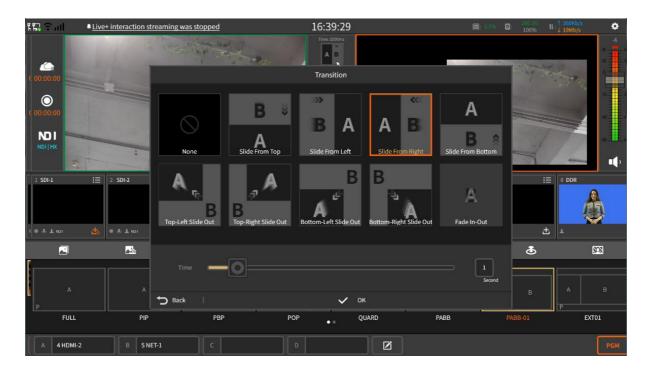
4) Direction control: The direction of camera movement can be controlled by up, down, left, right, the upper left, the upper right, the lower left and the lower right.

5) Speed adjustment: drag the speed adjustment button **F M S** to control the camera screen movement speed.

6) Channel selection: select in the need to control the channel, the PTZ selection channel and the camera loading channel should be consistent.

#### 2.1.12 Special Effects

Select the special effects required for the screen switching between the PVW channel and the PGM channel, and set the duration of the special effects switching process - transition time. You can select to click or AUTO button to switch the screen between the PVW channel and the PGM channel, and you can also use the special effects pusher to switch to achieve the transition effect. The setting interface is shown below:



#### 2.1.13 Chroma key

Chroma key is mainly used to eliminate the blue / green background behind the character background, and superimpose a specific virtual scene or specific background. Multi channel chroma key is supported in NSCcatser X2, and the effect is shown in the following figure:

ដែ <mark>ន</mark> ទំណា	Live+ interaction streaming	was stopped		16:34:06		(a): 15,0% (a): <sup>2</sup>	100% 11:1 432Kb/s 100% 11:1 21Mb/s	٥
( 00:00:00 ( 00:00:00 ( 00:00:00 NDI HX				Side From Right				
1 SDI-1	i≣ 2 SDI-2 ;≣ ∰ ⊛ ⊛ ≜ NO1 ∰		I ≤ Stream I ≤ Stream I ≤ I ≤ I ≤ I ≤ I ≤ I ≤ I ≤ I ≤ I ≤ I ≤	i≡ 5 AMNC 		i≡ 7 NET-3	i≡ DDR ±	ð
			<b>!!!</b>	<b>•</b>	iii	Ü	۵ 🕅	3
Chroma k	Blue screen	+ T	hreshold 0.52	- 	Blur 1	Background O 2	1 SDI-1	
1 SDI-1	2 SDI-2 3 HDMI-1	4 HDMI-2	5 NET-1	6 NET-2	7 NET-3 8 DDR			

Chroma key instructions are as follows:

1). Select the channel to enable chroma key, and the channel loads Chroma key materials;

2. Adjust the threshold and blur to achieve the best chroma key effect;

3. You can use other channels as the chroma key background, or use a custom background image. When the selected channel has no content, the chroma key background is transparent.

#### 2.2 NSCaster-X2 Settings Interface

Click to enter the setting interface. Respectively, there are "Project, Recording, Streaming, Output, NDI|HX output (if the module enabled), Network, Audio settings, OSD settings, File Transfer, General Settings, About" module.

#### 2.2.1 Project

Open the project module. By default, the project attribute displayed is the current project resolution. You can also click the required resolution and fps, select it, click apply, and restart the device. The configuration interface is shown in the following figure:

Ð	Config	Project properties						6
Project	Open and new	default					Apply	
Record		1920×1080	384	0×2160				
Streaming		25p	30p	50p	60p			
Output								
Network								
Audio								
OSD								
Files								
General								
About								

Open and create new module: you can select the recently opened historical project or create a new project. After saving, you can directly select the project to open the next time. The interface is shown in the following figure:

Ç	Config	Open project
Project	Open and new	P60 1920×1080 60p
		p50 1920×1080 50p
Record		1080p25 1920×1080 25p
Streaming		
Output		
Network		
Audio		
OSD		
Files		
General		Den Open
About		
		New project
		New
		1920×1080 3840×2160
		25p 30p 50p 60p

The button operation is described as follows:

1) Button: delete a single project;

2) Button: clear the project list.

#### 2.2.2 Recording

Record is including the PGM recording and channel recording. Click the button 🙆 on the "Main Interface" to start recording, and click again to stop. The recorded files are stored in the "Record-File copy-Recording" folder. The interface is shown as below:

¢	PGM	Recording parameters				<u> </u>
Project	1 SDI-1	Input Size				
Record	2 SDI-2	1Mbps	2Mbps	4Mbps		16000 Кыра
Streaming	3 HDMI-1	H.264	H.265			
Output	4 HDMI-2	CBR	VBR			Second
Network	5 NET-1	1 Second	2 Seconds	4 Seconds		
Audio	6 NET-2	64Kbps	128Kbps	256Kbps	320Kbps	
OSD	7 NET-3	Single File	1 Hour	2 Hours	4 Hours	
Files						
General						
About						

PGM recording can be started independently. When channel recording is started, PGM recording must also be started.

Note: If the recording is interrupted in the middle, the file will be damaged and you need to use the repair tool to repair the recorded file. To reduce the damage of the whole file caused by recording interruption, you can choose to split the recorded file.

Parameter settings include: resolution, video bitrate, video codec, bitrate mode, GOP, audio bitrate and segmentation. The bitrate and GOP in the interface can be customized.

#### 2.2.3 Streaming

PGM streaming is through RTMP protocol for live streaming. Click the button and the "Main Interface" to start the streaming and click again to stop, settings as shown below:

Ð	H.264	Streaming Settings					
Project		360P	540P	720P	1080P	2160P	
Record		1Mbps	2Mbps	4Mbps			15000 Кbps
Streaming		H.264	H.265				
Output		25FPS	30FPS	50FPS	60FPS		
Network		1 Second	2 Seconds	4 Seconds			Second
Audio		64Kbps	128Kbps	256Kbps	320Kbps		
OSD		Server Type					
Files		RTMP   🔅	SRT   🖨				
General							
About							

Streaming parameter settings include: resolution, video bitrate, video codec, frame rate, GOP, audio bitrate. The bitrate and GOP in the interface can be customized.

#### Streaming mode: RTMP

Select the live streaming as "RTMP", which can be pushed to two streaming media servers at the same time. If streaming protection is set, the user name and password must be entered. If there is not required, it does not need to be filled in. Input format is " rtmp://ip:port/live " Stream name is the name of the channel. Enter the complete streaming address in RTMP address 1 or RTMP address 2. As shown in the following figure:

Ð	H.264		推流参数				-	<u>,</u>	
工程		分辨率	360P	540P	720P	1080P	2160P		
				I	RTMP			15000	
录制								15000	Kbps
推流		视频组	RTMP地址1				<u> </u>		
			rtmp://192.168.0.208:19	936/live/123					
输出			帐号密码						
网络									秒
音频		音频码	DTUD#kt/2						
			RTMP地址2				F		
叠加									
文件		直播刊	帐号密码	×					
通用							•		
AM/15			示例: rtmp://IP:PORT/live/Stre	eamName					
关于				.facebook.com:443/rtmp/Stream	Key				
			Youtube: rtmp://a.rtmp.yout	ube.com/live2/StreamKey					
					✔ 确认				

#### 2.2.4 Output

#### 1) NDI | HX output

This module needs to be paid to add. This feature is available when NDI | HX is activated in the device information interface. You can choose NDI output source, resolution, video bitrate, video codec, GOP, audio bitrate. After NDI | HX is enabled, no channel is selected, and PGM content is output by default as shown in the figure below:

Ð	NDI HX		NDI HX Output				
Project	Live+ Interaction	Source (Output Control)	РБМ	1 SDI-1	2 SDI-2	3 HDMI-1	4 HDMI-2
Record	Live+ Unite		NDI HX Output Params				
			X2				
Streaming			1Mbps	2Mbps	4Mbps		8000
Output							оооо кыры
Network			CBR	VBR			
			1 Second	2 Seconds	4 Seconds		Second
Audio		Audio Bitrate	64Kbps	128Kbps	256Kbps	320Kbps	
OSD			04K0P5	12010095	2306045	520K0µ5	
Files							Wipe cache
General							
About							

#### 2) Live+ interaction

It is used to set the parameters of interactive video and audio to be output when it is used as an interactive source, mainly including the settings of video source, audio source, video resolution and audio bit rate; If a live+ service is deployed in the LAN, you can customize the server and port for interaction, as shown in the following figure:

Ç	NDI HX	Live+ Interaction (Param	eters are shared with	live+ Unite)		<b>(</b> )	)
Project	Live+ Interaction	РБМ	1 SDI-1	2 SDI-2	3 HDMI-1	4 HDMI-2	
Record	Live+ Unite	Master	Physical	XLR			
Streaming		360P	480P	720P	1080P		
		64Kbps	128Kbps	256Kbps	320Kbps		
Output				2501003			
Network		Live+					-
Audio		nddip.nagasoft.cn		Port 80		Apply	
OSD							
Files							
General							
About							

#### 3) Live+ Connection

To connect to the host venue, first you need to know the director code of the host venue equipment, and then select the host venue image on the equipment when connecting, as shown in the following figure:

Ð	NDI HX	Live+ Unite							
Project	Live+ Interaction							Connect	
Record	Live+ Unite	Load Stream (Load	the Live+ Interaction	on stream to the se	lected channel)			•0	
Streaming		1 SDI-1	2 SDI-2	3 HDMI-1	4 HDMI-2	5 NET-1	6 NET-2	7 NET-3	
Output									
Network									
Audio									
OSD									
Files									
General									
About									

#### 2.2.5 Network

NSCaster-X2 supports ethernet, WIFI and mobile networks. The status of the connection is displayed on the main interface, green dot indicate that it is connected.

**Ethernet**: The default boot and the access network cable will automatically obtain the IP. Open DHCP and click "Apply" to get the IP address automatically, or turn off DHCP to manually modify the IP address as shown below:

Ð	Ethernet	 Ethernet			<b>•</b> 0	
Project	WiFi	Auto(DHCP)	Static IP			
Record	Cellular					
Streaming	Network Speed Test	192.168.0.194		255.255.255.0 MAC:	192.168.0.1	
Output	*	192.168.0.1		1A:35:49:3C:CC:7B	Apply	
Network						
Audio						
OSD						
Files						
General						
About						

Ų	Ethernet	WiFi	
Project	WiFi		ି ⊗
Record	Cellular	nagasoft	A ?
Streaming	Network	JDCTAIA	<b>₽</b> ?
	Speed Test	nagasoft_5G	<b>₽</b> ?
Output		JDCLYJY2	<b>₽</b> ?
Network		Yunsu	<b>₽</b> ?
Audio		WIFI	হ
OSD		Yunsu5G	₽ 🙃
Files		WIFI	ę
General		WIFI	Ŷ
		WIFI	Ŷ
About		GXYCY	£ ?
		GXYCY	<b>₽</b> ?
		B0:1F:81:D8:33:E5	Other Captive Portal

WIFI: Select the WIFI you want to connect and enter the correct password.

**Mobile Network**: When the mobile network is enabled, the SIM card will be automatically recognized when it is accessed, and 5G network applications are supported. When the SIM card opens the Pin Code, you must enter the PIN code to unlock the SIM card before you can identify the successful dialing. The Pin Code has only 3 chances to be entered.

Ç	Ethernet	Cellular Network	<b>•</b>	
Project	WiFi	5G 📊 CHN-CT		
Record	Cellular	APNConfig		
Streaming	Network Speed Test			
Output				
Network		Unlock PIN		
Audio				
OSD			Apply	
Files				
General				
About				

**Network Speed Test:** After connecting to the network, you can test the upload/download connection status of the network in real time, as shown in the following figure:

Ð	Ethernet	N	etwork Speed Test					
Project	WiFi			†↓ Progress	🖶 Downlo	adRate	1 UploadRate	
Record	Cellular			70%		95	5.2 Mbits/sec	
Streaming	Network Speed Test							
Output								
Network		CurrentRate	92.3 1	Mbits/sec				
Audio		currentRate	0Mpbs		umumaman and a second			600Mpbs
OSD								
Files								
General		Location	China					
About								
						Stop		

#### 2.2.6 Audio Settings

The following settings can be made for audio input and output:

- 1. XLR input: Noise can be eliminated, and the noise threshold can be manually adjusted. The larger the noise threshold, the smaller the noise heard. Channel copy can be performed, and mono channels can be changed to left and right channels through channel copy.
- 2. Analog output: control the volume of analog output.
- 3. Audio delay: The delay of physical input sound can be controlled to ensure video and audio synchronization.
- 4. Tuning configuration: audio follow can be set.

The setting interface is shown in the figure below:

Ð	Audio		Audio Settings			
Project	Audio Mixer		Enable	Disable		
Record						
Streaming		Audio volume (Analog output		<u> </u>		
Output		volume)				
Network			Off	.00 Milliseconds 200 Mi	illiseconds 300 Milliseconds	0 Milliseconds
Aŭdio			Copy from left to right	Copy from right to left	Normal	
OSD						
Files						
General						
About						

#### 2.2.7 OSD Settings

It can support the display of the clock and remote CG overlay. The setting interface is shown below:

Ð	Clock	Clock					Show Clock	
Project	Remote	HH/MM/SS (24h)	HH/MM/SS (12h)	Y/M/D/HH/MM/SS (24h)	Y/M/D/HH/MM/SS (12h)	Y/M/D		
Record			] 🖪	-		-		
Streaming								
Output								
Network								
Audio								
OSD								
Files								
General								
About								

#### **Clock Settings**

Clock configuration status will let user know whether is on/off based on the status. If the status is "ON" means the clock is on right now and if the status is "OFF", means that the clock is off. After being turned on, the current time can be displayed on the PGM monitor, and the format and the position of the clock support real-time switching as shown below:

(	Clock					Show Clock
Format	HH/MM/SS (24h)	HH/MM/SS (12h)	Y/M/D/HH/MM/SS (24h)	Y/M/D/HH/MM/SS (12h)	Y/M/D	
Position		] =				

#### Remote CG

Since this function needs to be used with the CG editor, the operation of the CG editor can be found in the appendix. Start the overlay function and set the remote CG port (default port 8017 / default password is admin), click Apply, as shown below:

Ð	Clock	OSD Settings				Remote CG
Project	Remote	admin		Port	8017	Apply
Record			Clear Remote CG		Clear All OSD	
Streaming		Enable	Disable	]		
Output						
Network						
Audio						
OSD						
Files						
General						
About						

#### 2.2.8 File Transfer

File transfer between local files and USB flash drives as shown below:

Ð	File Transfer	File Transfer			5					
Project	FTP Upload	י <b>כי</b> (		â		· ·	י כי		ŝ	
		CG					0db音频文件			
Record		Font					Alarms			
Streaming		Picture					Android			
Output		Record					apk			
Network		Score					Chroma			
Audio		Subtitle					DCIM	<u>IPPI</u>		
		Video					Documents			
OSD							LOST.DIR			
Files							nscasterA1			
General							recovery-log-SN17	132380623099		
About							System Volume Inf	formation		
							X2			
							扣像背景视频			
		ф.	289.14GB/435.07GB	×			с С	5.79GB/28.87GB	×	
									ا ا	

- 1) Local folder directory description:
  - CG material: Store CG file
  - Font: Store font styles
  - Picture material: Store custom images, which can also be used for image overlay function and picture-in-picture custom template background.
  - Recording: The "channel" folder stores channel recording files, "pgm" folder to store PGM recording files.
  - Scoreboard template: Store customized scoreboard materials
  - Subtitles: Store txt format subtitle file
  - Video material: Store DDR playback video.
- 2) The button operation is as follows:
  - Button 🙆 : Return to the main interface directory of the file
  - Button I : Return to the previous directory
  - Button 🖾 : Delete files
  - Button 🔐: Refresh
  - Button E : Copy locally to a USB flash drive
  - Button E : Copy from USB flash drive to local
  - Button
     Remove USB flash
  - Button . During file copying, cancel the copy by the cancel button. Copy progress can refer to the percentage status of the progress bar.

#### 2.2.9 General Settings

General settings includes the configuration of time zone and language, system, lock, assist and other modules. The interface is shown in the following figure::

Ð	Time zone & language	Time Zones (Standard time)				
Project	System		(UTC+07:00) Hovd			
			(UTC+07:00) Krasnoyarsk			
Record	Lock	UTC	+07:00) Bangkok, Hanoi, Ja	akarta		
Streaming	Assist		(UTC+07:00) Tomsk			
Output	Other		(UTC+07:00) Novosibirsk			
Network		(UTC+08:00)	Beijing, Chongqing, Hong I	Kong, Urumqi		
Audio		(UTC-	-08:00) Kuala Lumpur, Sing	apore		
			(UTC+08:00) Perth			
OSD			(UTC+08:00) Taipei			
Files			(UTC+08:00) Ulaanbaatar			
General		·				
About		Language				
		简体中文 繁体中文	English	Deutsch	Español	
1						

1) TimeZone: Support real-time switching between time zone and language

2) System: It can adjust the brightness of the screen display, the percentage of the cooling fan speed, restore the factory settings and restart the equipment, as shown in the following figure.

Ð	Time zone & language	Screen					
Project	System	٠	- 1000000000000000000000000000000000000			*	
		Fan					
Record	Lock	10%	20%	50%	100%		
Streaming	Assist						
Output	Other	System Factory reset	Reboot				
Network			,				
Audio							
OSD							
Files							
General							
About							

3) Lock: You can set the lock to prevent mistakes of start or stop streaming, recording and sound adjustment, and support the setting of the device password. After the device password is turned on, you need to enter the password to unlock after each startup and restart, as shown in the following figure:

Ð	Time zone & language		Lock Streaming					
Project	System		Enable	Disable				
1			Lock Record					
Record	Lock		Enable	Disable				
Streaming	Assist		Lock Mute					
Output	Other		Enable	Disable				
Network			Password					
Audio					0	Lock screen		
OSD		Enter the new password						
030					_			
Files					•	Apply password		
General								
About								

4) Assist: Mouse: enable/disable mouse to operate. Tally: enable/disable Tally output5) Others: You can set the automatic streaming agter boot, DDR channel cut in and cut out, network pull streaming and live+ connection buffer time, as shown in the following figure:

C	Time zone & language	Streaming after boot				
Project	System	Enable	Disable			
		DDR Channel Cut In Play				
Record	Lock	Enable	Disable			
Streaming	Assist	DDR Channel Cut Out Pau	se			
Output	Other	Enable	Disable			
Network		Net Caching				
		Milliseconds	Live+	Milliseconds		
Audio		Channel window display f	rame rate, limit window f	frame rate for performance	optimization (only application	able to 4K project)
OSD		1/1	1/2	1/3	1/4	
Files						
General						
About						

#### 2.2.10 About

The device information interface displays the details of the current device. In that interface, user can also do the software update and firmware update when there is available. The interface looks like this:

ţ	Device	About this Device	
Project	Update	Device Model:	NSCasterX2
Record		Serial Number:	NSCX25Z20210812001
Streaming		Firmware Version:	21.11.3.2/1.2
Output		Software Version:	2.0.175.0
Network		SDK Version:	2.47
Audio		Vendor:	Nagasoft
OSD Files			Copyright (C) 2006-2022 Nagasoft Corporation.
General			
About			WINNER REACTOR CODE #59443