NSCASTER X2

Portable Studio Mixer **5G+4K**

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5G	4K	8 channel	Audio Mixer	Chroma key	PIP	Scoreboard	Logo and Subtitles	Streaming	H.265
Embedded 5G	4KP60	8 channel	Audio Mixer	Chroma key	PIP	Scoreboard	Logo and Subtitles	Streaming	HEVC coding

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NSCaster X2 is an embedded 8-channel live production tablet, equipped with 13.3-inch Full HD touchscreen, and supports up to 4-channel 4kp30 or 2-channel 4kp60 input. Three input combinations are supported: SDI × 4, HDMI × 4, SDI x 2 + HDMI x 2. Supports the input and access of many mainstream format signals and interactive access of live + mobile phones and other devices.

NSCaster X2 has built-in composition and production functionalities, such as subtitles, logo overlay, CG overlay, built-in rich material library, and supports secondary editing, making your production more appealing.

For the live streaming of sports events, NSCaster X2 has built-in scoreboards with a variety of event templates, and adapts to the event rules to make the live broadcast a richer and professional audience experience.

It is worth mentioning that NSCaster X2 has a 5G SIM card slot allowing it to start live broadcasting in the absence of a wired broadband network. A mobile provider plan is required.

Main technical specifications

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System

Display	13.3 inch LCD, 1920x1080 resolution touchscreen
System	Embedded Linux
CPU	Dual core ARM CORTEX A73@1.8 GHz+ dual core ARM CORTEX A53@1.2 GHz +Single-core ARM CORTEX A53@1 GHz
GPU	Dual core ARM Mali G71@900 MHz
Memory	8G
Storage	500G SSD
Dimensions	320x200x60 mm (WxLxH)

Video and Audio

Video Input	12G-SDI ×2 + 6G-SDI ×2 Or HDMI 2.0 ×2 + 12G-SDI ×1 + 6G-SDI ×1 Or HDMI 2.0 ×4
Video Output	HDMI output×1 (4KP60), supports PGM or Multiview HDMI output×1 (FHD), operation interface display output
Video Standards	SD PAL/NTSC, 720p50/59.94/60, 1080i50/59.94/60, 1080p25/30/50/59.94/60,4Kp25/30/50/60
Audio Interface	2-channel XLR/TRS mixed port balanced input and output, supports both balanced and unbalanced audio
Audio Sampling	48kHz, 16-bit, stereo

Stream Media Input

Streaming Protocol Support	Supports most mainstream protocols (RTMP/RTSP/UDP TS/HTTP M3U8/HTTP TS/HTTP FLV)
Video Decoding	H.264/H.265， hardware decoding, maximum 4KP120
Audio Decoding	AAC/MP3

Recording

|	
Video Encoding	H.264/H.265, maximum 4Kp120
Video Frame Rate/Bit-rate	1~60fps adjustable, 50kbps~200Mbps adjustable
Audio Encoding	AAC, 8~320kbps adjustable, 48kHz
File	MP4 (supports failsafe)

Live Streaming

Project Settings	1080p25/30/50/60, 4Kp25/30/50/60
Streaming Protocol Support	RTMP, SRT
Video Encoding	H.264/H.265, maximum 4Kp120
Video Frame Rate/Bit-rate	1~60fps adjustable, 50kbps200Mbps adjustable
Audio Encoding	AAC, 8~320kbps adjustable, 48kHz

Interface Ports

Ethernet	RJ45, 10M/100M/1000M stereo adaptive
Wifi	2.4G/5G Wifi 2×2 2.4G/5.8G dual band WIFI
5G	Supports 5G NSA/SA, 4G Netcom
USB Interface	Supports 2xUSB3.0 interfaces (mouse, keyboard, and/or other external equipment can be connected)
Extended Storage	1 TF card interface
TALLY	4-way TALLY signal output, one VGA port

Video and Streaming Input and Output
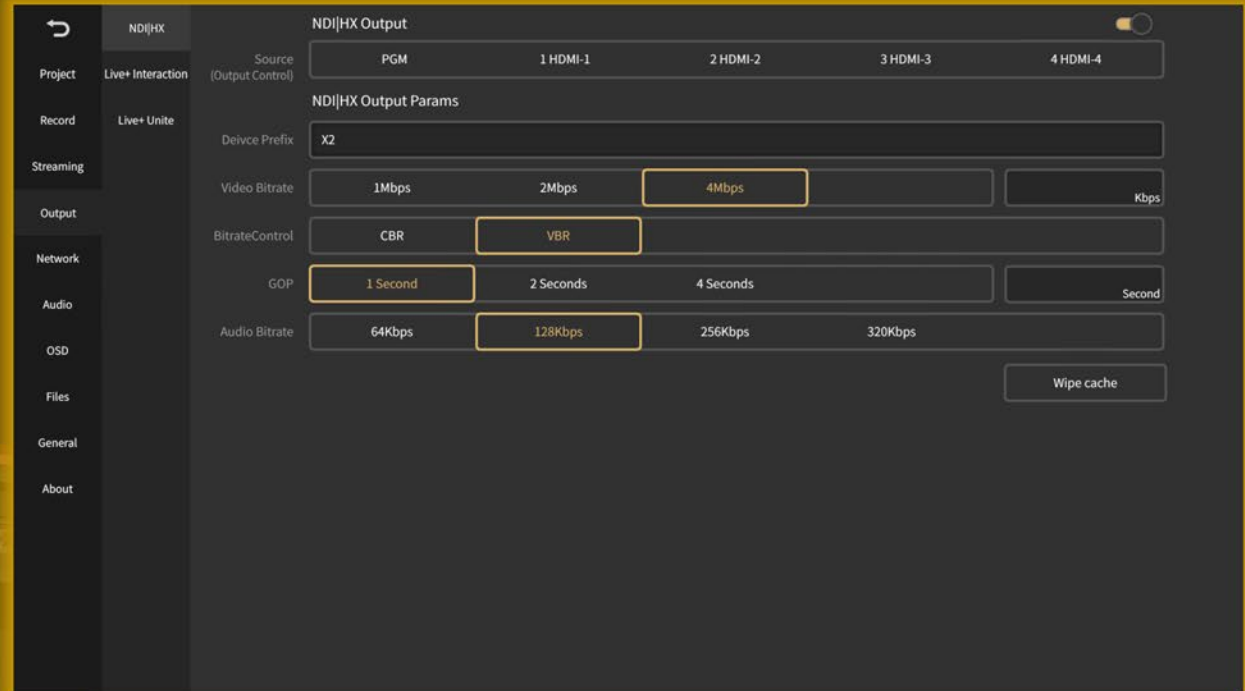
NSCaster X2 can utilize 8-channels for live production, can access up to 4 channels of HDMI / SDI 4K video signals, as well as many mainstream IP formats, and live + mobile device connection (like remote camera). Through various switching styles, the NSCaster X2 can realize professional multi camera/source program production.

Simultaneously, the device is equipped with one channel of PGM output (up to 4KP60) and one channel of HDMI output.

(Streaming Protocol Support NDI|HX/SRT/RTMP/RTSP/UDP TS/HTTP M3U8/HTTP TS/HTTP FLV)

Professional Audio Input and Output

NSCaster X2 adopts XLR/TRS combo ports, and supports balanced and un-balanced at the same time. Both XLR and TRS can be used, which is convenient for connecting various external mixer equipment.

Efficient and Intuitive User Interface
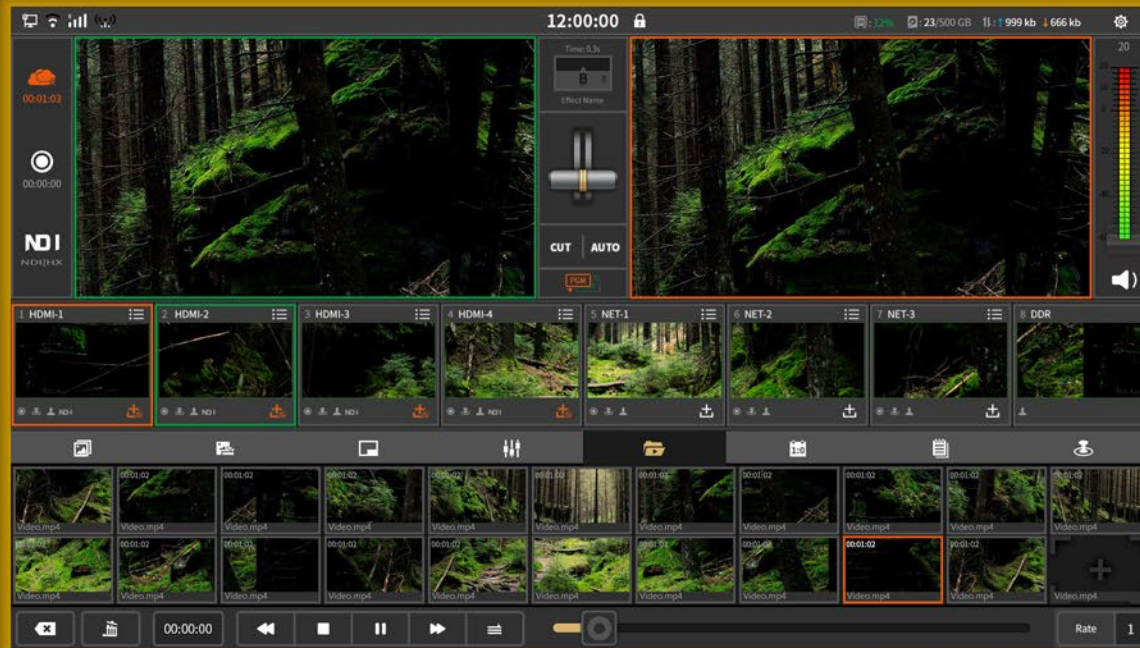
NSCaster X2 has a simple UI design enhancing accessibility and usability.

The newly designed UI enables users to proficiently put NSCaster X2 to use with minimal product knowledge training. Logical and functional zoning with clear buttons and icons, not only makes the interface more concise and appealing, but also offers a clearer visual overview of all functions and its status.

The 13.3-inch Full HD touch screen greatly improves the operation efficiency, meets the needs of beginners and professionals, to get up and running quickly, with a gentle learning curve.

NSCaster X2 is equipped with a 13.3-inch Full HD touch screen. During the production, just touch any video channel to switch it to the PGM channel. In the program composition column, the drag and zoom during touch editing is also very convenient.

With the exclusive optional external control panel, you can build more professional live video workflows.
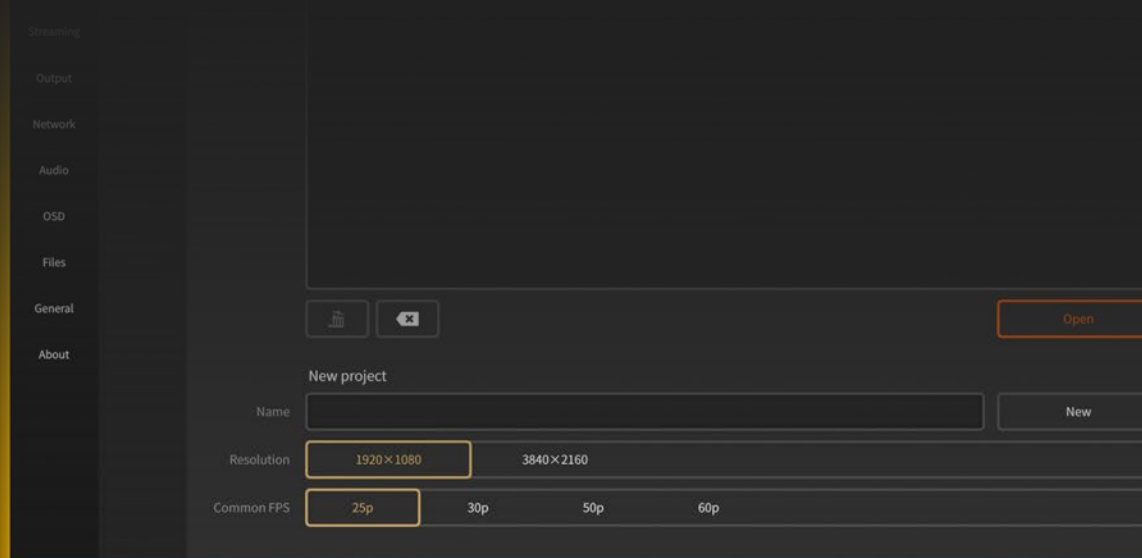
NSCaster X2 can create 4K standard projects and supports up to 4KP60 standard input and output. With the powerful program composition functions of X2, users will be able to create more appealing live programs.

5G SIM

NSCaster X2 has a built-in 5G SIM card slot, supports 5G NSA / SA, and is downward compatible with most 4G network communication systems. Mobile networks can be used for live streaming where no wired broadband is available, such as outdoor or temporary venues.

NSCaster X2 supports the NDI | HX protocol commonly used in current program production. After activation, it can be used to build very efficient IP video workflows. In addition to audio and video, TALLY and PTZ camera control protocols are supported with the NDI | HX protocol.

NSCaster X2 supports a real-time channel Chroma-key function. It utilizes efficient real-time Chroma-key GPU acceleration, for blue screen or green screen with one key, supporting dynamic parameter adjustment, such as threshold and blur. It also offers background placement mode for files or a channel signal.
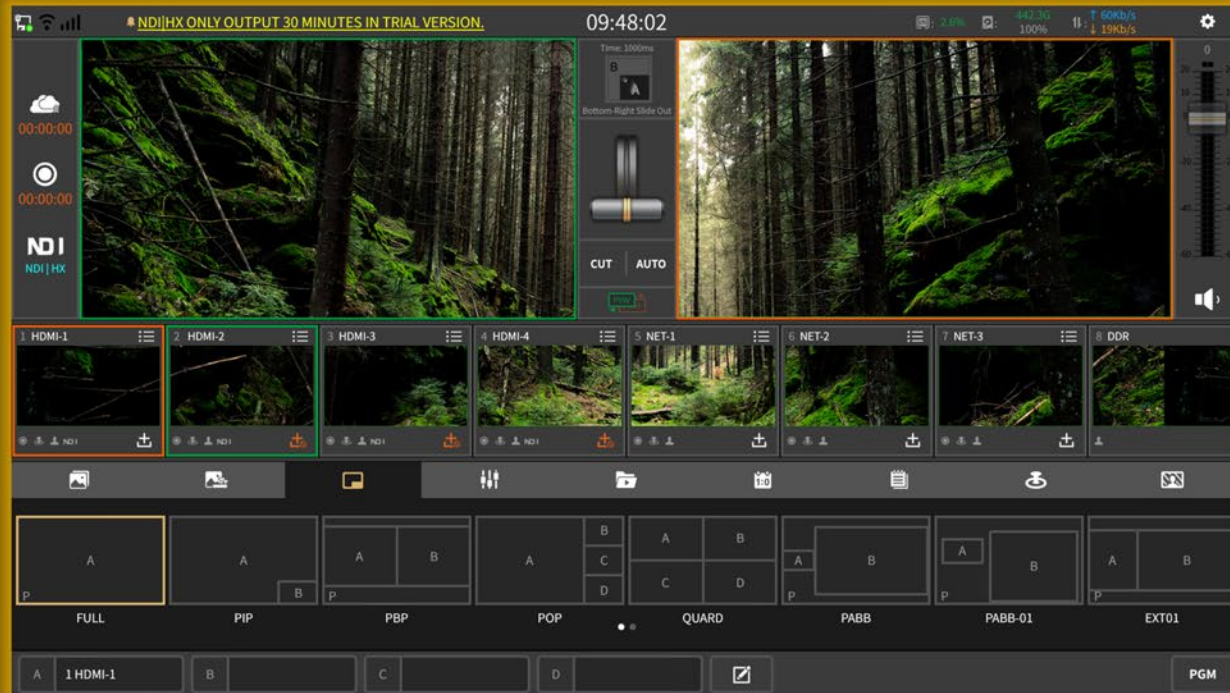
NSCaster X2 series supports the simultaneous display of the main visual and multiple sub screens on the same PGM screen. A variety of different picture segmentation layouts and the support for custom picture size and layout is provided. Users can quickly switch the main channel and sub channels, saving post-production time. This is an ideal choice for training, meetings, online programs and other production applications.
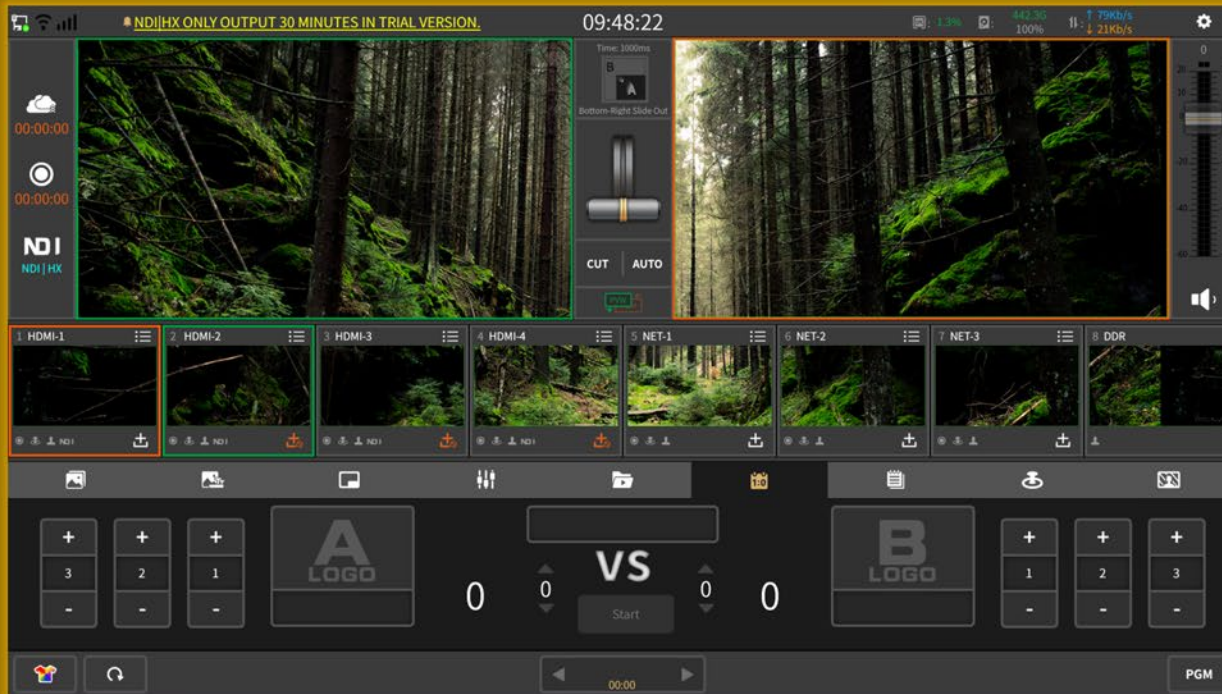
NSCaster X2 series has built-in live sports scoreboard function and a variety of templates to choose from, which can display the score of the live game in real time.

Scoring rules templates for basketball, football, table tennis, badminton, volleyball and other sports events are available. The templates render the live sports coverage more professionally, enable easier program creation, and offer a more enjoyable viewing experience.
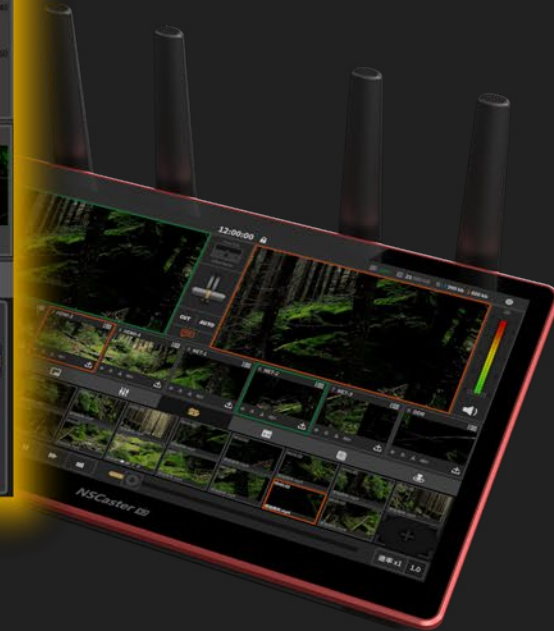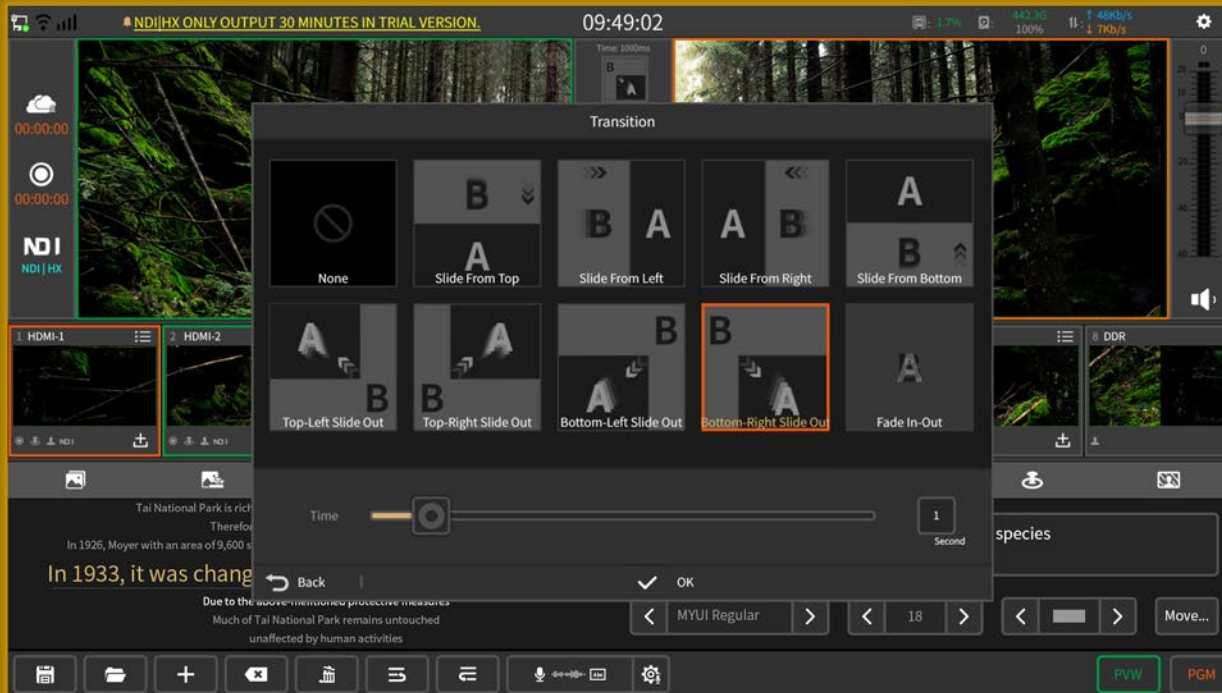
NSCaster X2 has a built-in software based mixer and supports multiple channel mixing effects. The volume of each input and total output can be controlled accordingly.
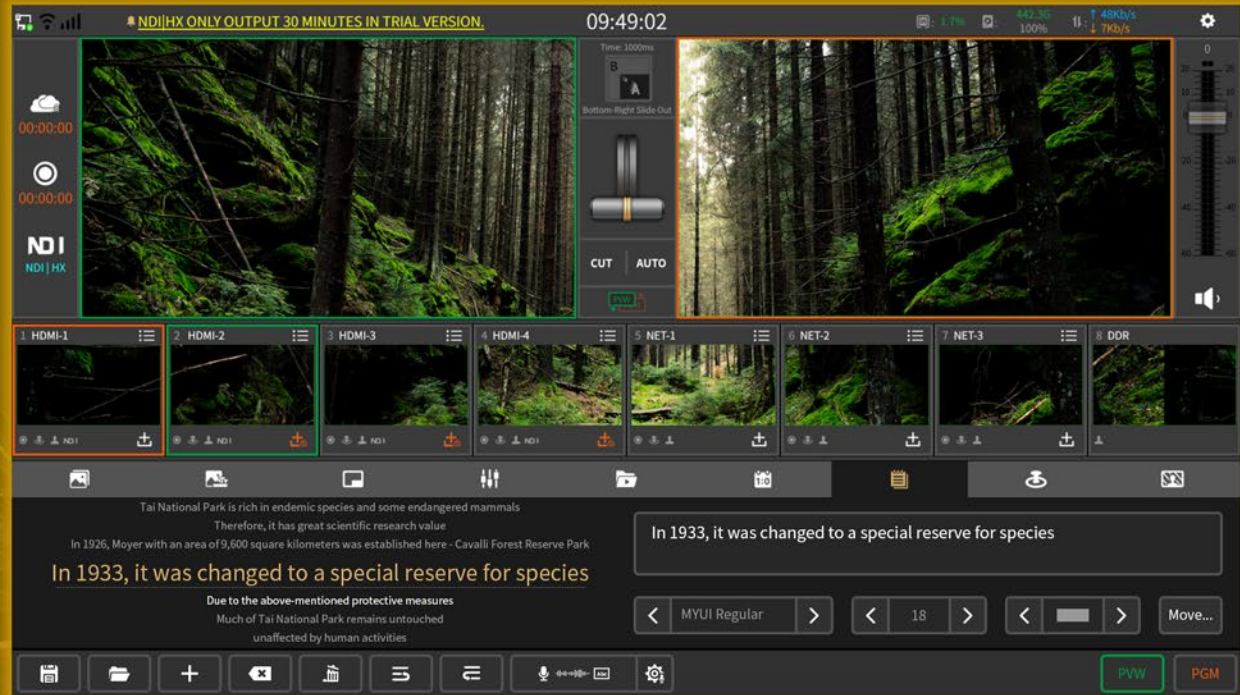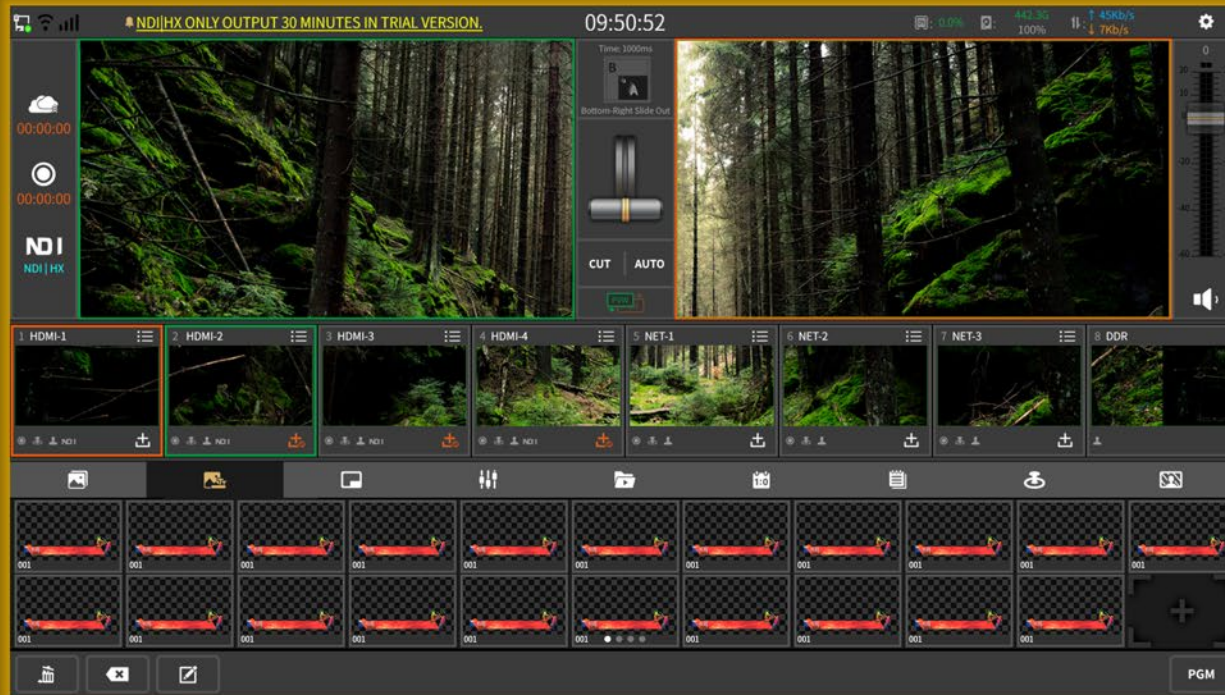
NSCaster X2 supports real-time subtitle input or subtitle file import (optional voice to text), subtitle font type, font size, color and scrolling effect settings.

NSCaster X2 can utilize a variety of transition effects for channel switching, with a simple setting of the transition time.

NSCaster X2 's CG panel can publish pictures to the PGM channel. It has a built-in large number of pictures but also supports importing external PNG/JPG image formats. Adjusting the position and changing the size of the pictures with up to 20 positions is supported. It is possible to publish imagery on the X2 or remotely with the CG editor software on a PC, making your program production more appealing and comprehensive.
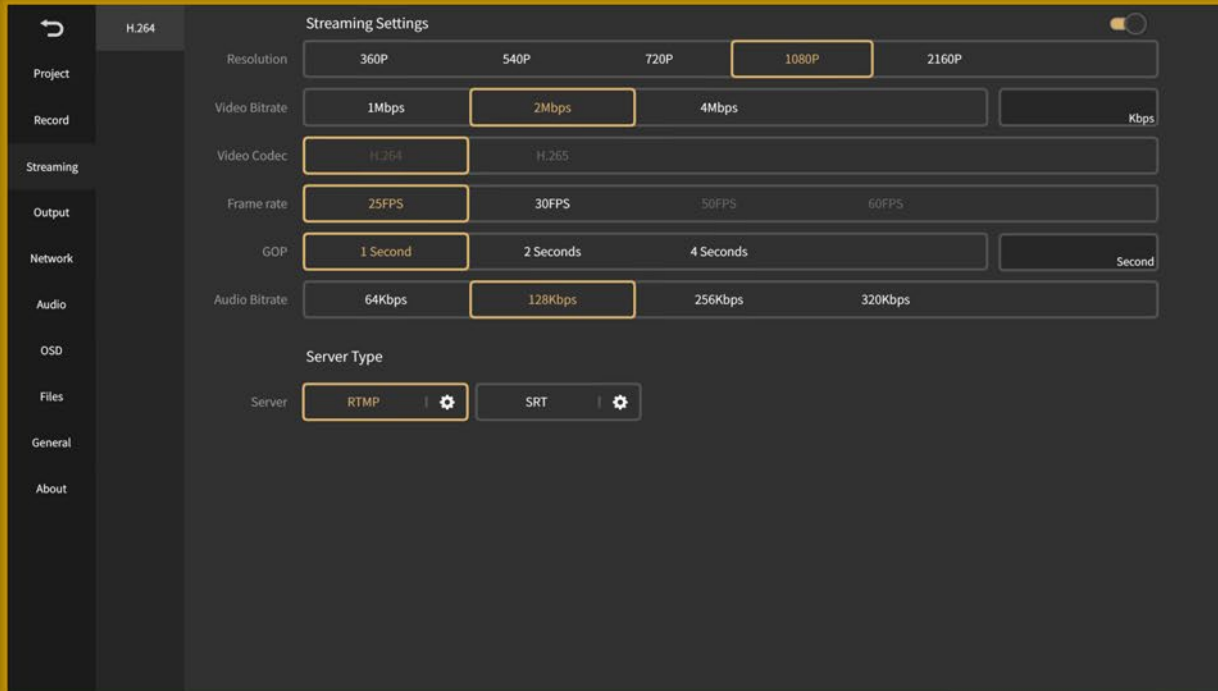
PGM and Channel Recording

NSCaster X2 supports PGM and all input channel recording. The recording format and parameters can be adjusted. Recording power-off protection is also supported, in case of accidental power failure, software tools can be used to restore the files.

Multi-platform Live Streaming

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Streaming Settings

Resolution	360P	540P	720P	1080P	2160P
Video Bitrate	1Mbps	2Mbps	4Mbps		Kbps
Video Codec	H.264	H.265			
Frame rate	25FPS	30FPS	50FPS	60FPS	
GOP	1 Second	2 Seconds	4 Seconds		Second
Audio Bitrate	64Kbps	128Kbps	256Kbps	320Kbps	

Server Type

Server: RTMP ⚙ | SRT ⚙

H.264

Project
Record
Streaming
Output
Network
Audio
OSD
Files
General
About

NSCaster X2 has built-in live streaming to multiple live platforms (Facebook, YouTube etc.), and also can stream to multiple live platforms by RTMP/SRT etc. It supports multi-platform and multi stream push at the same time, which provides convenience for multi-platform live streaming coverage.
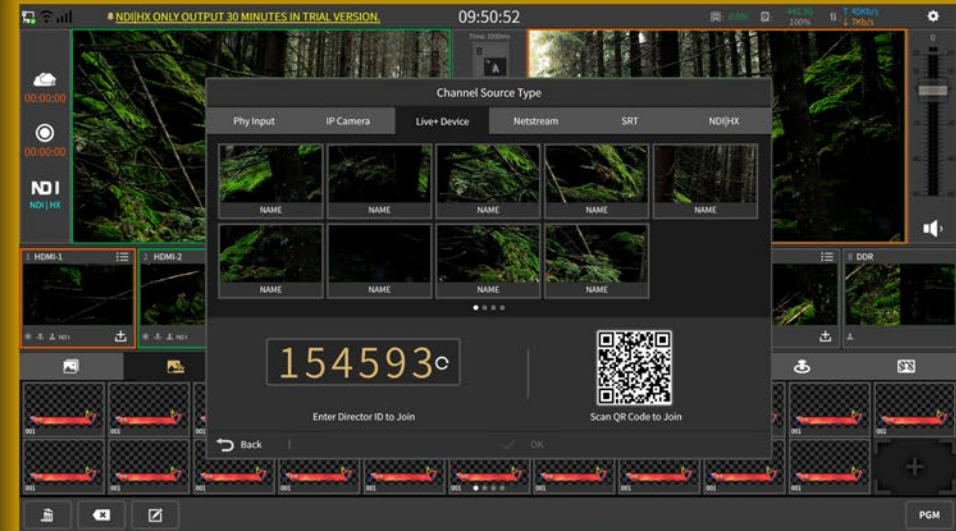
Multiple access methods

NSCaster X2 is equipped with the live + interconnection system. Through the Naga NDDIP protocol, front-end devices such as smart phones and encoders do not need wired connections. Only scan the provided QR code from the X2 device, or input the 6-digit director code to immediately realize a video and audio interconnection between the front-end device and the X2 system and join the live streaming program, making the production of live programs simpler and faster.
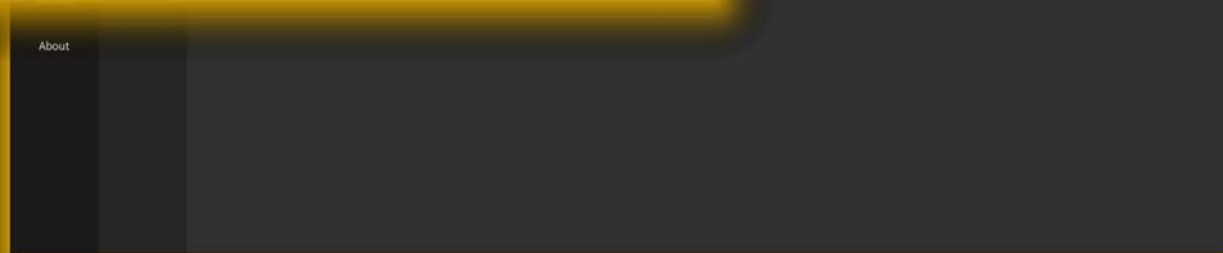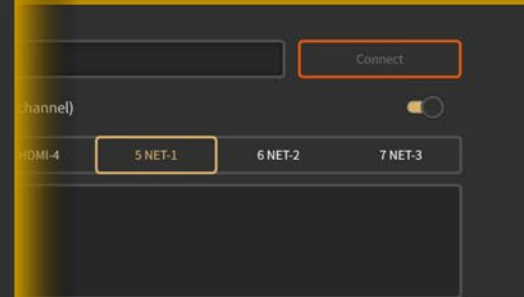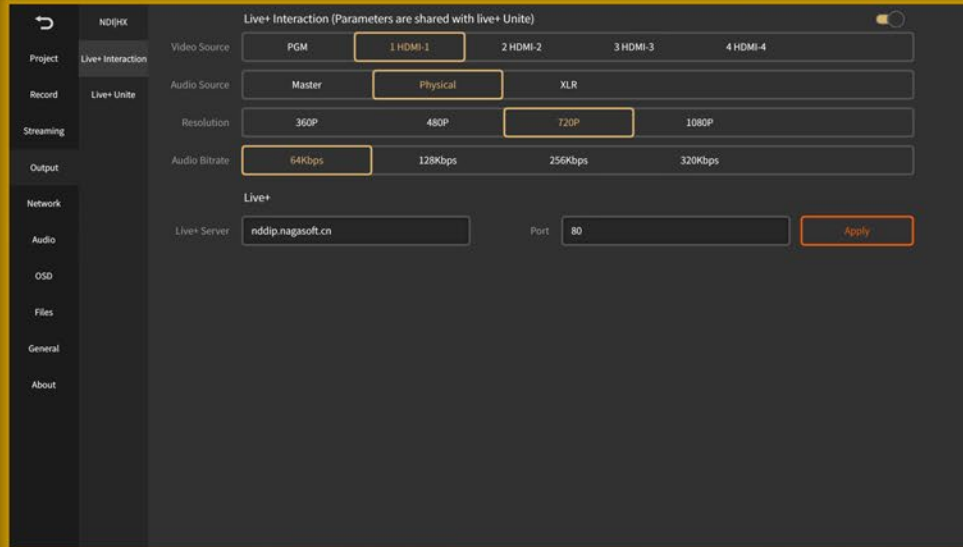
NSCaster X2 supports the interconnection between multiple devices. Through the Live + director code connection mechanism between devices, it can realize the setup of multi machine interconnections in the form of live streaming of main and sub venues.

Custom channel Signal Setting
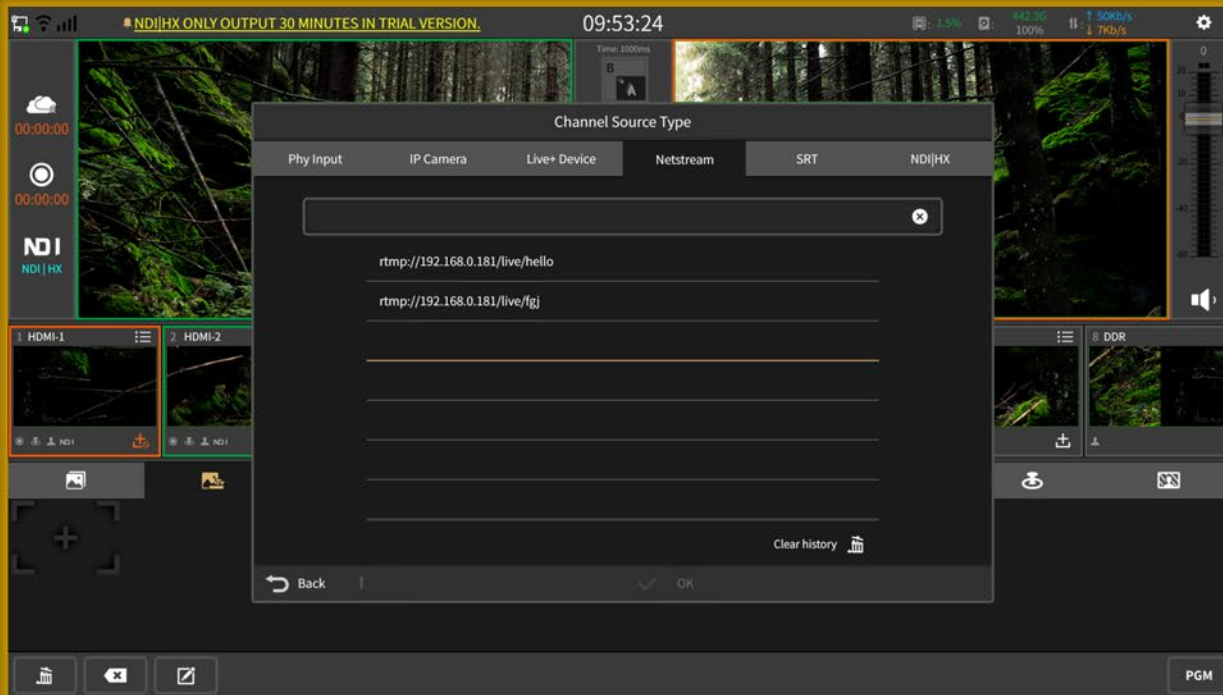
NSCaster X2 has a 8-channel window and supports channel customization. You can select the input mode of various video sources such as physical camera input, IP camera input and network stream for each channel, which can meet various live streaming requirements.

If all channels are set to IP stream signal access, a multi-channel live streaming with full IP stream signal access without time and space constraints can be created at any place.
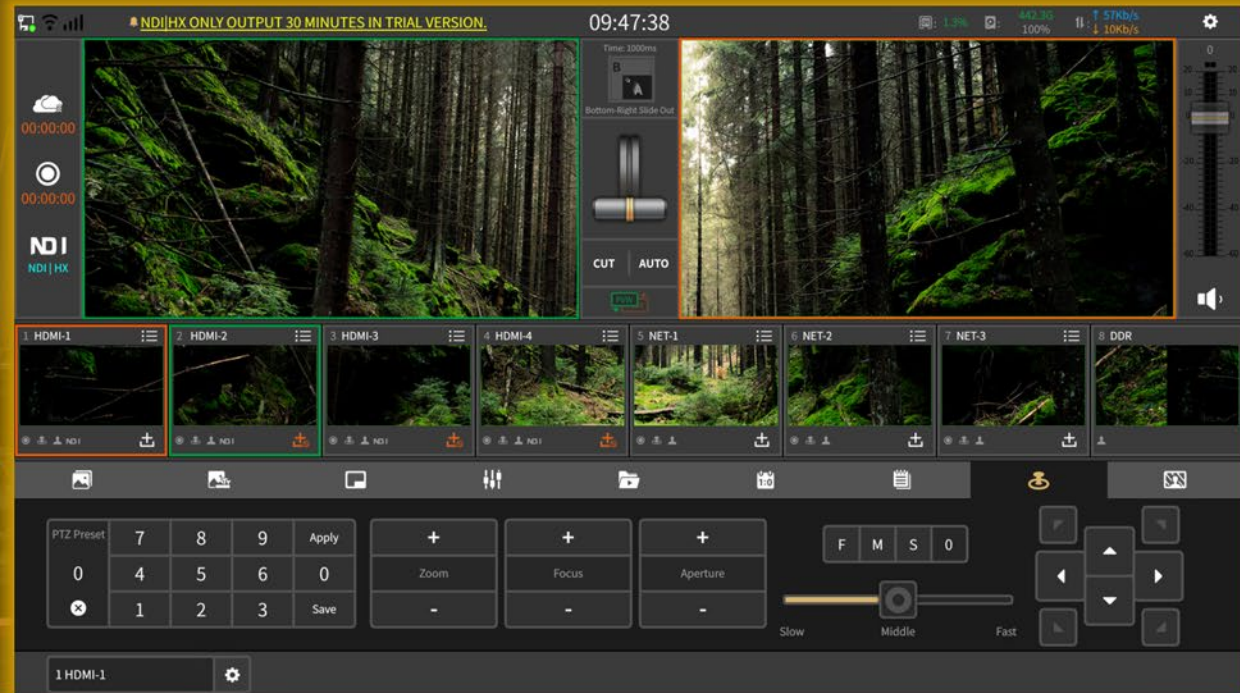
NSCaster X2 has a built-in PTZ control interface and supports a variety of mainstream PTZ control protocols (visca over IP, onvif, NDI|HX). It can remotely control the camera PTZ, supports zoom, focus and aperture control, supports up, down, left, right, top left, bottom left, top right and bottom right PTZ movement, supports PTZ movement by knob, and quickly locating the target position.

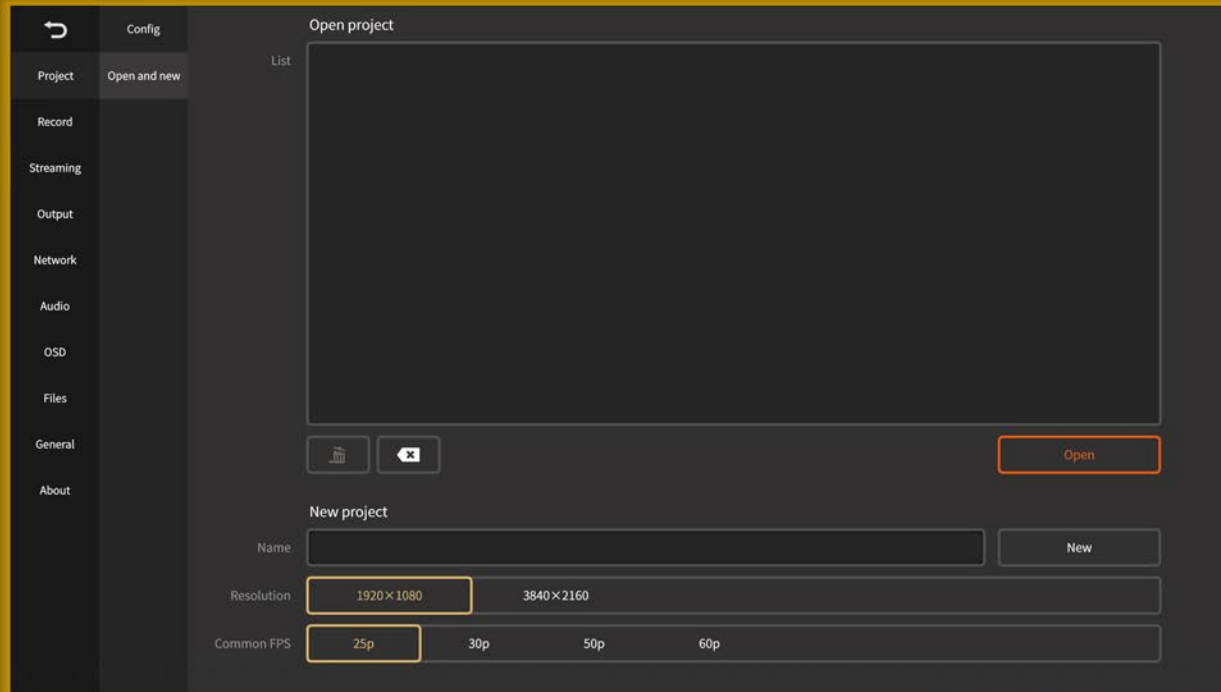# Mobile Phone Easy Sharing and Fast Picture Transmission

NSCaster X2 has built-in functions for mobile phone easy sharing and fast picture transmission. Mobile phone scanning of the provided QR code on the X2, realizes fast text input on the mobile phone utilized on the X2 and picture transmission.
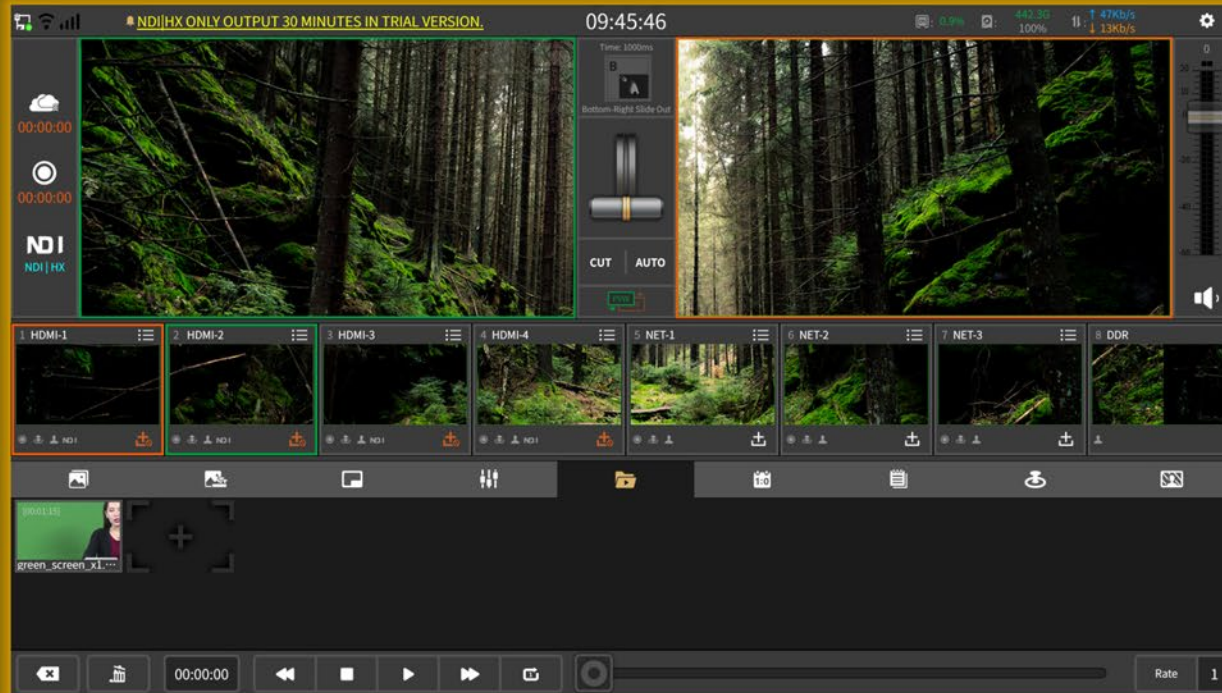
NSCaster X2 supports external video import and playback, it supports H.264 and H265 playback, up to 4Kp60.

Project based setup

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Open project

List

Config

Project | Open and new

Record

Streaming

Output

Network

Audio

OSD

Files

General

About

Open

New project

Name | New

Resolution | 1920×1080 | 3840×2160

Common FPS | 25p | 30p | 50p | 60p

INPUT

With the **NSCaster X2**, you can store current settings conveniently in a project file. This allows swift loading of parameters according to the project requirements, without having to enter the values again.

Multi language UI
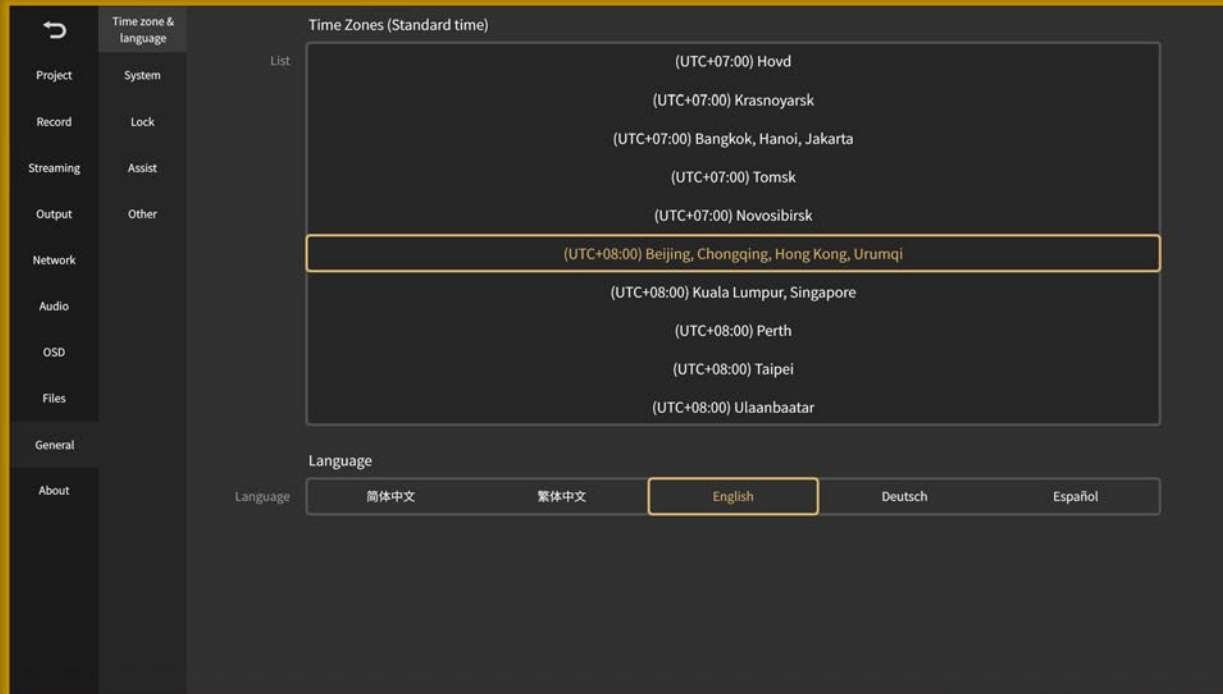
The **NSCaster X2** Offers a Multilanguage UI. At present, it supports English, simplified Chinese, traditional Chinese, German and Spanish UI. More Languages will follow in the future.

TF Card Expansion Support

NSCaster X2 supports hot plug TF card storage expansion, which can be used for external program recording and saving media files.