STARVIEW ASIA
TECH FOR A BETTER WORLD

NVP SERIES

VIDEO WALL PROCESSOR

VIDEO WALL IMAGE PROCESSING SOLUTION

The Starview NVP series Video Wall Processor is a high-performance video image processing workstation with pure hardware architecture and no operating system. It can be widely used in security monitoring, exhibitions, military command, education and scientific research, government announcements, commercial displays and other industries.

PERFORMANCE

The Starview NVP series of multi-screen splicing processors adopt the FPGA+ system architecture to provide users with solutions for cross-border integration of security splicing and commercial display for the 7x24 working environment. The modular design provides a high degree of flexibility and maintainability.

Based on the video processing technology of FPGA, create flexible applications of FPGA+ architecture.

Based on intelligent control technology, computing codec technology and Android's flexible display interaction technology, a modular, embedded, intelligent and scalable display management platform is constructed, which can realize arbitrary windowing, roaming, superimposing, zooming, rotating, etc. A variety of display effects..

Features & Benefits:

- Up to 144 x DVI , HDMI , VGA inputs simultaneously
- Up to 144 - video wall screen
- Input resolution up to 3840 x 2160@30Hz
- Output resolution up to 1920 x 1080@60Hz
- Ability to control multiple Wall screens
- Maximum Distance from Video Wall: 70m via LAN; and 300m via Fiber

BASIC FUNCTION (STANDARD CONFIGURATION)

- The main modules such as input board, output board, switch board, fan, and dust-proof net are all plug-in design, which brings great convenience for daily use and maintenance.
- The function expansion slot supports arbitrary mixed insertion of input and output boards.
- Support output mapping, the construction of the project site is more flexible, the connection line between the equipment and the display unit does not need to be one-to-one correspondence, and can be quickly adjusted in the software.
- A single signal can be spliced and displayed on any M x N display units, and M and N are both positive integers greater than or equal to.
- Supports arbitrary windowing and roaming of input signals, supports layer overlay, and supports up to any layout of two layers or four layers on a single screen.

BASIC FUNCTION (STANDARD CONFIGURATION) (CONT.)

- Intelligent scaling technology, image scaling adopts intelligent multi-phase filtering algorithm, automatically selects the optimal filter coefficient according to the characteristics of the image, the image is close to the magnitude scale effect, ensuring more details, no jagged edges and good sharpness
- Support seamless switching. The processor integrates high-definition signal processing mechanism to ensure no delay, no blue screen, no black screen and other intermediate transition states when the signal is switched.
- Support intelligent black border removal (arbitrary cropping of the input image), edge masking, area enlargement and other real-time processing functions of the screen.
- Supports automatic detection of input signals, real-time detection of whether each input port has signal access, input boards and client software have status indications.
- Support matrix switching, integrated matrix function inside the processor, support a single signal source to open multiple windows and display at the same time
- Supports the pre-operation mode. After turning on this function, the operations of all windows will not take effect immediately. You need to click Confirm to make all operations take effect at once.
- Support output resolution setting, support 1920x1080@60Hz, 1920x1080@30Hz, 1366x768@60Hz, 1280x720@60Hz, 1024x768@60Hz and other conventional resolution output.
- Each group of display walls can pre-store 32 pre-plan modes, which can be called by one key.

HIGH-END FUNCTION (OPTIONAL)

- Support multi-channel ultra-high resolution base map.
- Supports character superposition of input signals, and parameters such as font type, size, background color, foreground color, display position, etc. can be changed through the control software.
- Built-in audio matrix function, single board supports up to 8 channels of audio input or output.
- Supports a single computer to push multiple web pages, videos, pictures and other media resources on the wall for display, and all media resources can be displayed on a single screen or spliced to achieve point-to-point uncompressed display.
- Support audio and video mixed input and audio separation function, support audio output with the channel.
- IP stream real-time decoding, support H.265, support ONVIF, RTSP and other network streaming media protocols, compatible with mainstream brands of network cameras (IPC), NVR, video streaming servers, etc.; a single network port supports up to 64 channels of D1, 32 Channel 720p, 16 channels 1080, 4 channels 4K decoding.
- Support mobile phone, tablet computer, laptop screen mirroring push function.
- Support the real-time network preview function of the input signal to avoid misoperation of the switching signal in important occasions.
- Support the real-time hardware preview function of the input signal, and the hardware preview interface supports up to 3840x2160@60Hz resolution output.
- Support the visual echo function of the entire large-screen signal, and control the display status of the large-screen in real time.
- Support redundant power supply, one normal power supply and one backup power supply. When the normal power supply fails, it will automatically switch to the backup power supply.
- Support BS control/support cross-platform control, no need to install any client software, support web login control; support windows, IOS, MAC OS, Android, Linux and other operating systems, cross-platform control and visual management.

CHASSIS PARAMETERS

Flexibility:

Our video wall controller provides great flexibility with 7 different chassis sizes.

Chassis	1U	2U	3U	4U	7U	11U	15U
Input Slots	2	2	6	4	18	22	36
Output Slots	2	4	3	8	9	15	18

INPUT CARD SPECIFICATION

Type	INPUT Type	Description
Input	HDMI	4 channels/card, HDMI1.3 digital interface, support HDCP, max support resolution 1920x1080@60Hz
	DVI-D	4 channels/card, 24 + 5 pin DVI-I female x4 (only DVI-D signal is accepted), support HDCP, max support resolution 1920x1080@60Hz
	VGA	4 channels/card, support HDCP, max support resolution 1920x1080@60Hz
	YPbPr	4 channels/card, DB-15M analog interface, max support resolution 1920x1080@60Hz; standard DB-15M to YPbPr three-color video cable
	HDMI 90 Degree rotated	2 channel/ card, HDMI1.3 digital interface, support HDCP, maximum support resolution 1920x1080@60Hz; support 90 degree, 180 degree, 270 degree real-time rotation function
	CVBS	8/16 channels per card , support PAL/NTSC system, and carry out image resolution conversion and optimization of the input signal; support 4-segment and single-channel window display mode (need to be converted to 8-channel BNC connector through an adapter cable)
	SDI	1 channels/card, SD/HD/3G-SDI signal input (BNC female), max support resolution 1920x1080@60Hz
	4K	4 channel/card, HDMI1.4, the max supported resolution is 3840x2160@30Hz
	IP streaming	1 interface per card, 1 card supports 4 channels 4K/16 channels 1080p/32 channels 720p/64 channels D1 video decoding, supports H.264 and H.265 video compression formats; each IP Plus board supports 4 IP Channel, each IP channel supports 1/4/9/16 screen split.
	HDBaseT	Channels/card, support 4-channel twisted pair signal input, the max input resolution is 1920x1080@60Hz, and can transmit up to 70 through cat6 twisted pair
	KVM	1 card 4 channels, supports 2 channels of KVM agent input (each channel has an optical port and a network port), the max input resolution is 1920x1080@60Hz;

FUNTIONAL CARD SPECIFICATION

Type	Description
WEB control card	The processor integrates a WEB server board; supports cross-platform control of various operating systems such as Windows, iOS, MAC OS, Android, Linux, and Kirin, and supports mobile phone and tablet control
Basemap subtitle card	Supports ultra-high resolution static base map display. When the base map is turned on, the bottom image window is occupied by default. Supports ultra-high-definition point-to-point vector subtitle display, scroll speed can be set arbitrarily, and parameters such as display content, font, color, etc. can be edited. Subtitles occupy the top image window by default
Redundant Power supply	Support one normal use power supply (100 ~ 240V AC, 50-60Hz) and one backup power supply (100 ~ 240V AC, 50-60Hz). When the normal power supply fails, it will automatically switch to the backup power supply
Preview card	Support the real-time network preview function of the input signal, support the visual echo function of the entire large-screen signal, a single card supports up to 8 channels of highdefinition signal echo preview at the same time, the customer can choose to configure multiple return graphics cards or choose arbitrarily through the software 8 Input to enable preview. Support various operating systems such as Windows, iOS, Android, Linux, Kylin, etc. Crossplatform control and visual management.
Buttons and LCD panel(custom made)	2.4-inch full-color LCD screen with crystal button panel, can support real-time display of device information, fast switching of input signals, plan retrieval and storage, etc.

OUTPUT CARD SPECIFICATION

Type	OUTPUT Type	Description
Output	HDMI-2	1 card 4 channels 2-window output, support HDMI1.3 and HDCP, max support resolution 1920x1080@60Hz. Audio optional
	HDMI-4	1 card 4 channels 4-window output, support HDMI1.3 and HDCP, max support resolution 1920x1080@60Hz. Audio optional
	DVI-D2	1 card 4 channels 2-window output, max support resolution 1920x1080@60Hz
	DVI-D4	1 card 2 channels 4-window output, max support resolution 1920x1080@60Hz
	VGA	1 card 4 channels two-window output, support 4 channels VGA output (DB-15M analog interface), maximum support resolution 1920x1080@60Hz
	Fiber	1 card 4-channel 2-window output (2-channel 4-window optional , after configuration, the right two channels are backup interfaces, which completely duplicate the signals of the left two channels), support 4-channel optical signal output, the maximum output resolution is 1920x1080@60Hz , The maximum transmission distance is 10Km
	HDBaseT	1 card 4-channel 2-window output (2-channel 4-window optional , after configuration, the right two channels are backup interfaces, which completely duplicate the signals of the left two channels), support 4-channel twisted pair signal output, the max output resolution is 1920x1080 @60Hz, can transmit up to 70 meters through Category 6 twisted pair
	CVBS	1 card 4-channel 2-window output（2-channel 4-window optional, after configuration, the right two channels are backup interfaces, which completely copy the signals of the left two channels), support 4-channel CVBS output 3.5mm AV output interface, standard AV to BNC connection Line, the max support resolution is 720*576@60Hz; the two channels on the right support optional 3.5mm independent audio
Output	SDI	1 card 4-channel two-window output (two-channel four-window optional , after configuration, the right two channels are backup interfaces, which completely duplicate the signals of the left two channels), support 4-channel SDI signal output (BNC female), the max supported resolution 1920x1080@60Hz

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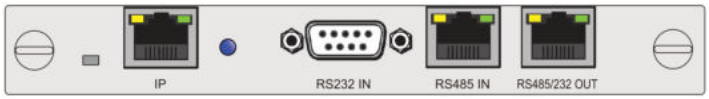
COMMUNICATION INTERFACE DESCRIPTION

Master Card	
IP	Network interface Ethernet (RJ45), remote management via LAN network (protocol TCP/IP), connecting switch / router, or directly connecting computer
RS232 IN	RS232 interface, connecting computer serial port
RS485 IN	Optional, RS485 input control reserved
RS232 OUT	Optional, RS232 loop out, control panel, RS485 loop out interface (reserved)

Default IP of splicing processor: 192.168.1.128,ports: 5000, 5100, 5200, 5300; The default serial port of splicing processor (RS232), special rate: 115200bps;

RJ45 wire sequence of RS232 out:

2	TX
3	RX
5	GND

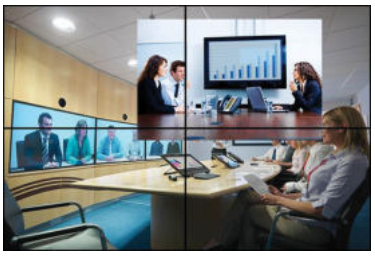
INPUT AND OUTPUT

Powerful Video and Image Processing:

Each card can transmit and display input signals at full frame rate (no dropped frames) regardless of output windows size with maximum performance, each data or video source can be simultaneously placed into four separately positioned and scaled windows, display multiple image signals continuously on the screen at the same time. Videos and images can be arrange, move, and resize as you like displayed , within or across screens, in correct ratio or stretched to fit, in whole or zoomed to emphasize details, drag and drop; create, adjust, edit, delete layouts. These features include:

Open windows

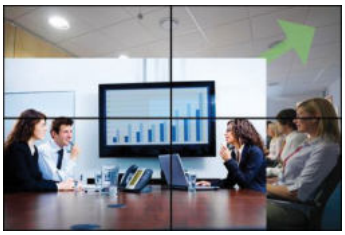
Roaming/Moving



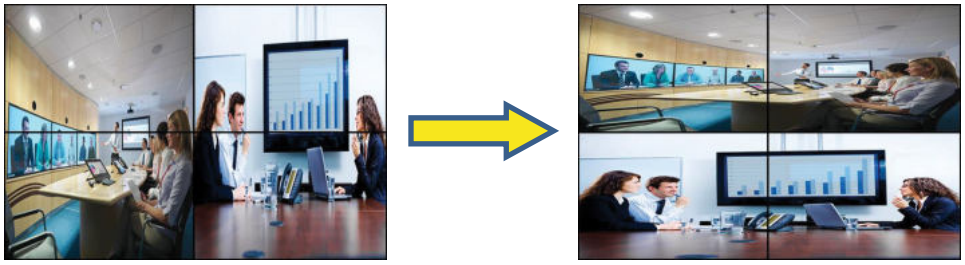
PIP/POP

INPUT AND OUTPUT (CONT.)

Zoom in/out



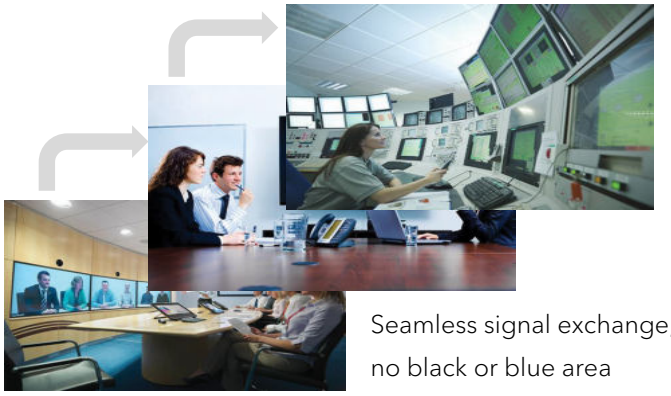
Stretching



Scene switch

Pre-arranged planning, round tour:

16 sources Pre-arranged planning, Round play



Seamless signal exchange, no delay, no black or blue area

Signal seamless exchange:

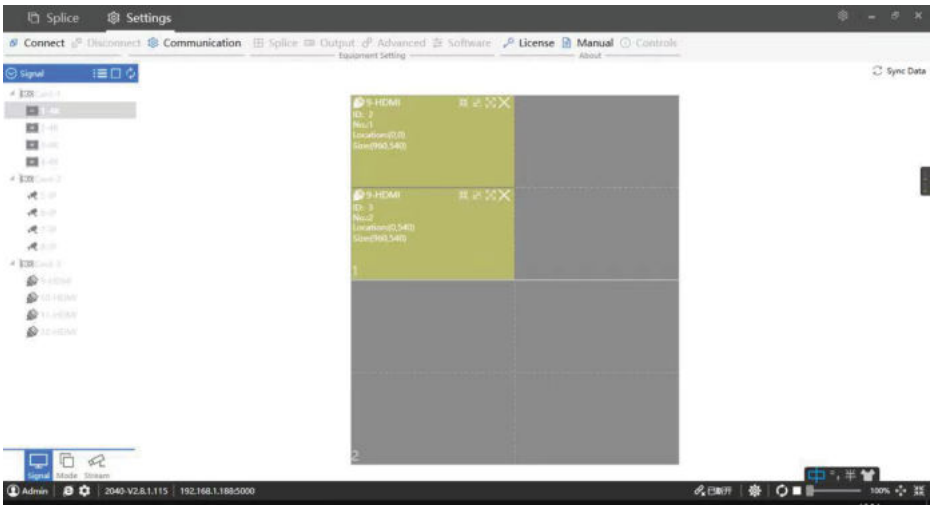
2 windows full screen seamless exchange

SOFTWARE CONTROL

PC software control (Permanent license included with device):

The Starview NVP Video Wall Processor has its own control software Starview VWC which increases its reliability, consistency and efficiency. Our video wall controller's operating system has user friendly graphical user interface for best user experience. It is a complete, integrated and intuitive software package for the control and management of video wall controller.

- Create and manage multiple Walls
- Create, edit, save, rename, and delete layouts / presets
- User Management
- Drag-and-drop interfaces: Control critical data and simplify operator control for ergonomic workspaces



APPLICATION

1. Video conferencing rooms
2. Security and surveillance system
3. Process control room
4. Call center
5. Military command and control center
6. Public utility control center
7. Intelligent trafic management center
8. Energy management rooms
9. Board rooms
10. Network operation center
11. Financial managemet control room
12. Residential markets

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Performance specifications are typical. Due to constant research, specifications are subject to change without notice. For the most up-to-date specifications, please contact an authorized Starview representative.

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