Skyworth LCD Video Wall Controller
User Manual

Please read the user guide book carefully before using this product

Contents

1、Features

Controller features:

★Skyworth the fourth generation V12 digital array high-speed image processing technolgy. Video bandwidth as high as 500MHZ, it make combination image more brilliance, stable.

★Open window function. It make image across the screen, open window, PIP, zoom, stacked, roaming etc.

★LVDS transmission technology can enhance anti-interference ability. We adopt high-speed bus connection technology, system can fast switch signal to the command of the speified channel, realizing fast response. LVDS technology enhances anti-interferenceability.The influence of the external disturbance to signal the lowest.

★The latest high-speed digital matrix switch technology.

The input signal is less than 64 channels; it can realize the arbitrary switching channels without other matrix.

★Full HD Signal Supported

Adopting the advanced de-interlacing method and motion compensation method, the processor can display the clearer and more exquisite interlacing signal on the screen, and eliminate the jaggies to the largest extent, and the real-time processing with full and actual HD on images can be realized. The design of video processing module with pure hardware structure can realize the real-time sampling on HD video and computer signal with high resolution, and ensure the highest video quality of HD signal, so as to perform the high quality and perfect frame for the clients.

★ Modular design meet customer different requirement

Adopting modular and pure hardward video processing, combination mode are not restricted by processing speed. According to customer requirement to order product.

Contorl software features:

★Humanized software interface. System management software platform based on windows 2000/NT/XP operating system, support all kinds of application of windows. Professional skyworth software no need database support, no need install the database engine. It's easy to maintenance and backup.Humanized software interface is easy to understand, easy to operate for User.

★Combination unit real-time control function.The software real-time controls every LCD unit through the RJ485 communication interface to connect with every LCD unit. It can adjust brightness, contrast and color temperature of every LCD unit. The adjusted parameters save automatically, it ensure the whole combination screen's color and brightness is same standard.

★Freeze function. Through freeze button of software interface, it can freeze the current image rapidly, so that user can watch detail.

★Memory function.Through software setting, restart the system, it cam memory the state before power off.

★**Identify and Process Multi-Signals in a Smart and Quick Way.**

It can select, retrieve, switch and display such signal sources as video, VGA (RGB) and YPbPr in a convenient and fast way, and may set and adjust such signal parameters as color and luminance of signal. The prompt function for signal source can give the detailed information of each signal source to the client at any time and any where.

★**Diversified splicing display function on image**

The LCD video wall system will be operated and controlled by a set of control software. The operator can set all parameters of the large screen

system by the software, and operate the functions of information display and signal switch. It can arrange and set the size and position of the window for signal display, and can also save the result as a display pre-arranged plan, so that the display pre-arranged plans can be retrieved and executed by multiple ways.

★**Open software design, support the second developing**

According to customer different requirement, we can offer software service, such as open SKD software package I/O protocol and the second developing of software.

2. Specification

Model		LCD-CONTROLLER8
HDMI IN		1920x1080（60Hz）downwards compatible
Communication interface		RJ485port in/out , RS232port D-Sub9
Communication control		Baud rate: 115200
Communication box		Input: USB2.0 port
		Output: RJ485port，2 output
Storage Environment		Temp -20℃-60℃;Relative Humidity 5%-90％
Operating Environment		Temp 0℃-60℃;Relative Humidity 10%-90％
Power/Consumption		Power：100-240V（AC） 50/60Hz ≤80W
Hardware Support	PC	Standard configuration :Intel P4 or above；Memory :512MB DDR or above；USB2.0 Port；
Software Support	Operating System	Windows XP/Windows 7
	Control & Management software	Provide *SKYWORTH* Manager software

3、Operation

①System Connection:

（1）Connect the communication box to the computer:

Connect the USB port of communication box to the computer at the master control terminal by the USB cable;

（2）Connect the Controller:

Connect any LAN port at the output terminal of communication box to the RJ485-IN terminal of Command controller by LAN port connecting wire; connect RJ485-OUT 8 terminal to the RJ485-IN terminal of VGA controller by reticle; and connect the RJ485-OUT9 terminal to video controller respectively;

（3）Connect the Signal Cable:

Connect the input and output signal cables of VGA controller and video controller;

Note: The signal cables shall be connected correspondingly to the display units.

（4）Insert the plug into the AC socket, switch on the power to start the LCD video wall system;

②Operation Instruction to the Control Software:

（1）Install the software:

Start the computer and open the control software disk provided by the manufacturer, which shall include the following content:
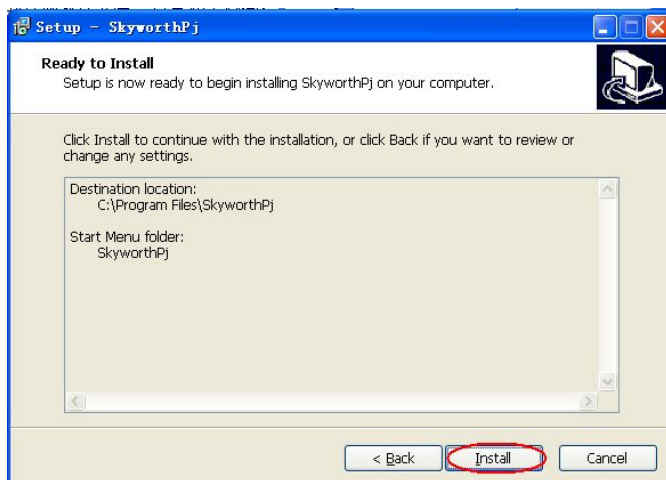

Firstly, install driver software, double click and open

"USB-rs232" ， click . After install driver, re-start

computer and install control software, double click and open "PjSetup.exe".

Choose "English" language, click "next "，then click "Install":

After installation, click "quit".

（2） Start software

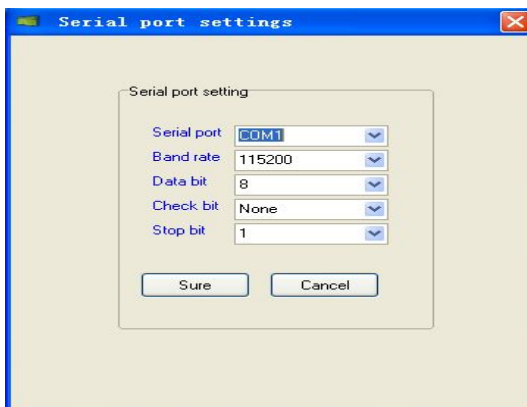In "start" menu to open software "Skyworthpj":

As shown following interface:

User name is "user", the password is "user". After login, as shown following interface:
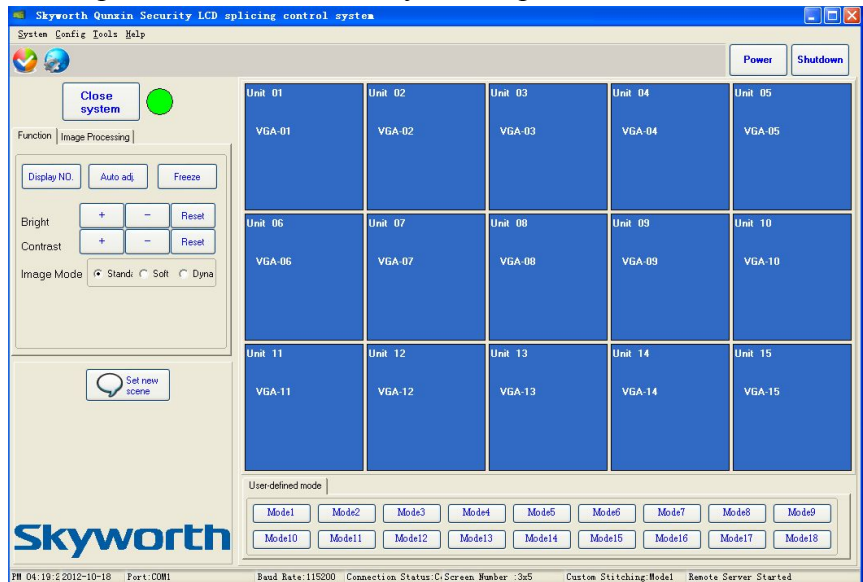

Set serial port

Before start system, we first need to set serial port, click "set serial port" icon, you can modify serial port and baud rate in following dialog box. (Baud rate is 115200)

After connecting with communication box, computer auto identify relevant serial port; Baud rate is "115200", data bit is "8", check bit is "none", stop bit is "1". Click "sure".

Start system

After the completion of the set, start system. Operation interface as shown:

Basic function adjustment

Display Number & Automatic Video Assigning

Click the "Display Number" and "Automatic Video Assigning"

buttons, numbers of all screens and auto assigned pictures shall be shown.
Brightness & Contrast Ratio

Click the "+" and "−" buttons by the indicating "Brightness" and "Contrast Ratio" symbols (once at a time) to adjust individual or combined picture brightness and contrast ratio. Click the "reset" button to return to manufacturer preset.
Display Modes

Click "Display Modes" button to access control of display modes of individual screens. There are 3 alternatives: 'Standard", "enrich",
"Soft" mode.
Freeze Screen

Click the "Freeze Screen" button to freeze picture of individual or combined screens. Click the "cancel"button, the picture is back to normal.
System management

Click on the upper left corner "system management" icon, then click "login management", it will pop up "password"dialog box. User can modify log name and password. As shown:
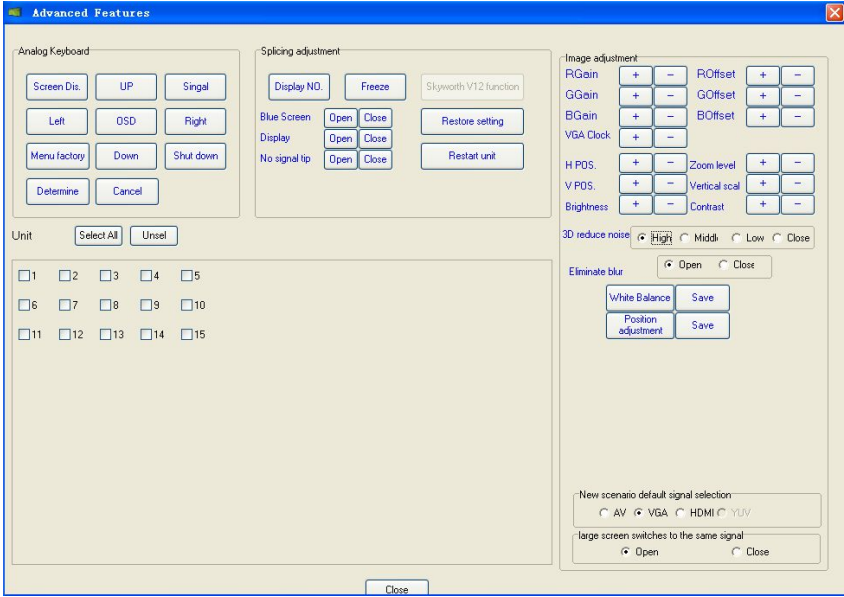

New Profile

The profile refers to the large splicing image defined by the user and the current signal status.

The new profile refers to empty the large image and make a new mono-image with AV or VGA (the default signal can be set as AV or VGA after setting the new profile in the Advanced Function) .

Advanced Function

Click the button of "Advanced Function" on the top left corner , and then input the password for limits of authority: abc.123, and the administration interface for log in will be popped:
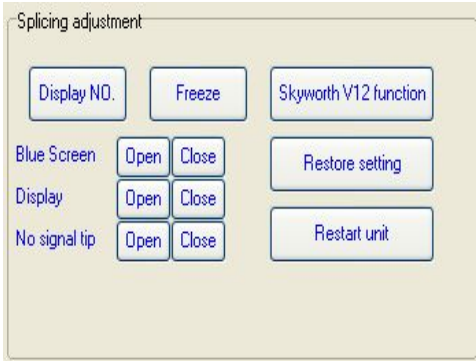
When the image of display unit cannot be adjusted to be the perfect status by the Auto Adjustment of main interface, it shall be adjusted in the Advanced Function, and the serial number of splicing unit to be adjusted shall be selected at first. 。

Mock Keyboard Functional Area

Such function can replace with the function of remote controller and switch the signal of display units, menu, OSD, power on and off, and entry of factory menu, etc..
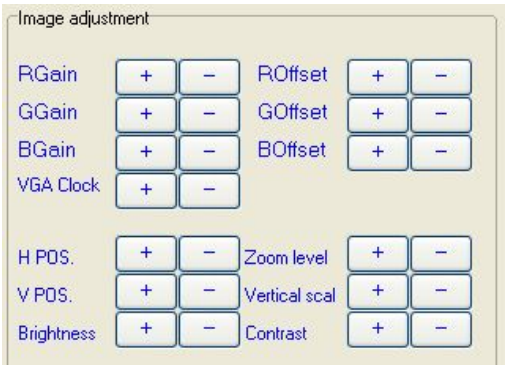

Splicing Adjusting Area

Blue Screen Switch: When it is open, the display unit will be in blue when there is no signal; otherwise, it will be in black;

OSD Switch: When it is open, the signal format and resolution will be displayed when switching the signal. Otherwise, it will not be displayed;

Prompt Switch for No Signal: When it is open and there is no input signal for the display unit, the prompt for No Signal will be displayed, otherwise, it will not be displayed.

Reset to Factory Default: Click such button, all parameters of the splicing system will be reset to be the factory defaults;
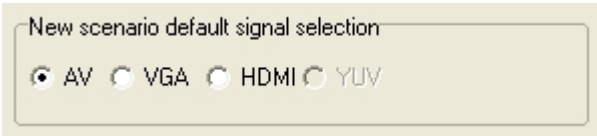
Image Adjusting Area

Such function is to adjust image color and position through"+" 、
"-"button to   adjust image R 、G 、B and   image vertical position &
horizontal position.

Adjustment of Input VGA Signal

For the input VGA signal, click the button of "White Balance
Adjustment" and "Position Adjustment" in order to make the image best.
After adjustment, it shall click the button of "Save" for save the result.

Choose the Default Signal of New Profile

After choosing "AV/VGA/HDMI", click the button of "New Profile"
on the main interface, and then all signals of the display units will be
correspondingly switched to "AV/VGA/HDMI ".

Note: 1) "restore the default factory" button is to clear EPROM, the memory will clear.

2) All function in the advanced setting base on the screen unit is selected. When parameters is changed, please click save, and click "reboot screen unit".

3) Enter "factory menu", click "OSD" to exit menu.

LCD video Wall Setting
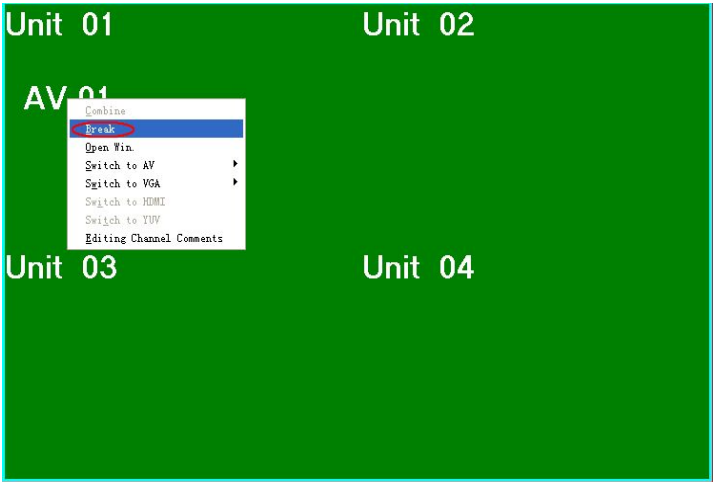
①**Single Screen Setting**

Select splicing units then click the right mouse button and select to switch the signal to AV/VGA, and then select the signal input channel, and the display unit will show the signal to be input in the input channel.

②**Large Screen Setting**

Any combination type of splicing can be realized in the large screen splicing. Firstly, press the mouse left button for a long time, and drag the first unit of the splicing combination to the last unit. When the selected area is changed to be green, it is shown that such area has been selected. Then click the mouse right button and select "Splice", namely splice the selected units to be a large frame. Then press the mouse right button to input the signal, switch the signal to be AV/VGA, and select the signal input channel. If the splicing large frame shall be displayed in a single screen, it shall press the button of "Single Screen" and it can be displayed in a single screen. **For saving the set splicing method, select "Profile" beneath and press "Save" with the mouse left button, and then such splicing method will be saved in such profile. The preview window on the left side may also show the picture with the splicing method saved in the profile.**

Unit 01	Unit 02
AV-01	AV-02

Combine
Break
Switch to AV ▶
Switch to VGA ▶
Switch to HDMI
Switch to YUV
Editing Channel Comments

Unit 03	Unit 04
AV-03	AV-04

Click right mouse to choose "signal screen", then the large screen splicing will show signal screen..

Unit 01   Unit 02

AV-01

Combine
Break
Open Win.
Switch to AV ▶
Switch to VGA ▶
Switch to HDMI
Switch to YUV
Editing Channel Comments

Unit 03   Unit 04

If save splicing mode, click "mode 1.2.......18", press left mouse to save, then this profile is saved. The left preview window can show splicing picture.

Mode1	Mode2	Mode3	Mode4	Mode5	Mode6	Mode7	Mode8	Mode9
Mode	de11	Mode12	Mode13	Mode14	Mode15	Mode16	Mode17	Mode18

Load
Save
Delete
New

Several common splicing methods can be respectively saved in the profile, so that during operation, it can directly click the button of "Profile" to complete the splicing of corresponding large frame. Instruction to the operation related to the corresponding profile:

Load: Load the profile that has been already saved;

Save: Save the current profile;

Delete: Delete the profile that has been already saved;

New: Build a new profile