

# Solar Wall Management Software User Manual

(SW-Control)

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## Note:

Before starting to use this manual, it is recommended to follow the instructions in 'SolarWall Controller Quick Start Guide' to ensure the SW-Control software has been properly installed and the controller has been configured and connected to the control PC.



#### Contents

- 0. Overview
- 1. Toolbar
  - 1.1. Software Operation
    - 1.1.1. Connect
    - 1.1.2. Disconnect
    - 1.1.3. Communication setting
    - 1.1.4. Configuration
    - 1.1.5. Quit
  - 1.2. Basic Operation
    - 1.2.1. Setting
    - 1.2.2. Multi Screen Wall Operation
    - 1.2.3. Layout File Backup
    - 1.2.4. Preview
    - 1.2.5. Screen Control
  - 1.3. Tools
    - 1.3.1. Management
    - 1.3.2. Layout File Backup
    - 1.3.3. Language
    - 1.3.4. Version
- 2. Application Toolbar
  - 2.1. Signal Management
    - 2.1.1. Open a window
    - 2.1.2. Cropping
    - 2.1.3. On Screen Display (OSD)
    - 2.1.4. Change the display name of input source
    - 2.1.5. Change EDID on video capture cards
  - 2.2. Layout
    - 2.2.1. Open a layout
    - 2.2.2. Save a layout
    - 2.2.3. Modify a layout
    - 2.2.4. Delete a layout
  - 2.3. Camera List
    - 2.3.1. Set up the IP input signals
    - 2.3.2. Set up the IP Decoder Cards
- 3. Video Wall Display Area
  - 3.1. Resize a window
  - 3.2. Restore a window
  - 3.3. Move a window
  - 3.4. Full Screen
  - 3.5. Pre-set layout shortcut bar
  - 3.6. Set up output sync mode
- 4. Preview Toolbar
  - 4.1. Set up Preview
    - 4.1.1. Set up the connection of preview card
    - 4.1.2. Preview window function
  - 4.2. Change the Preview setting



# 0. overview

		Controller Software[Disconnected]	- 8 <mark>- X</mark>
Software Operation Basic Operation T	ools		
Connect Disconnect Communication Configuration Setting Software Operation	n Quit 1		Hardware ID :
Signal Management			
Controller	1 2 3 4 5 6 7	8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	23 24 25 26 27 28 29 30 31 32 33 34 35 ×
PC			
		1 2 3	4
SignalSource7 SignalSource8 SignalSource9 SignalSource10	2	5 6 7	8
SignalSource12		9 10 11	12
SignalSource16     SignalSo		13 14 15	16
		5 6 7 8 9 410 11 12 13 14	15 16 17 18 19 20 21
Signal Management	22 23 24 25	26 27 28 29 30 31 32 33 34 35	36 37 38 39 40 41 42
Layout	play		
Camera List	stop 43 44 45 46	9/ 98 49 50 51 52 53 54 55 56	5/ 58 59 60 61 62 63 set
*	Preview Encoder 1 Preview Encode	12	

SW-Control is a program that is used to control the SolarWall 2000 & 4000 video wall controllers. It provides a GUI in ribbon style for the users and enable users to interactively move, resize, position and crop any input capture windows. The whole GUI consists of four main parts:

- 1. Toolbar
- 2. Application Toolbar
- 3. Video Wall Display Area
- 4. Preview Toolbar

SW-Control enables users to create and save video wall layouts and load them whenever needed. Moreover, it also allows users to create a layout looping schedule to automatically switch between different layouts.

- Friendly user interface
- RS232 and Telnet
- Multi language support (English, Korean, Russian, Simplified Chinese, traditional Chinese)
- Create, copy, save and delete layouts
- Import or export layouts
- Short cuts for each layout
- Looping ability between layouts
- Text overlay on any input source
- Position, re-size and crop input windows
- Input signal preview
- Support Windows2000/XP/Vista/7/8/10.
- User authority management
- Drag and drop easy operation
- Multi video walls control (up to 4 video wall controlling simultaneously)



# 1. Toolbar

The ribbon style tool bar has three groups of tools: software Operation, Basic Operation and Tools.

		_	7			Con	troller	Softwa	re[Disc	onnecte	d]											-	
Software Operation Basic Operation T	ools																						
Connect Disconnect Communication Configuratio Settling Software Operation	in Quit																			I	Hardwa	are ID :	
Signal Management	1			_	_	_	_	_	_	_	_	_		_	_	_	_	_	_	_	_		
Controller	1	2	3 4	5 6	5 7	8 9	10	11 12	13	14 15	16	17 18	3 19 2	20 21	22	23 24	25 2	26 27	28 2	9 30	31 32	33 3	4 <u>35</u> ×
						1			4	2			3			4							
SignalSource7						5	)		(	6			7			8							
SignalSource11										10			4.4			10							
·····································							,			10						12							
						1	3			14			15			16							
and the second s							_			_			_						ļ				
			_		_			_			_								_				
	<	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	>
Signal Management		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	
Layout Camera List	stop	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	set
*	Preview	v Encode	er 1	Preview	Encoder a																		

# 1.1. Software Operation

All the tools in this module are used to set up the controller before use.

Software Operation	Basic Ope	Tools	
Connect Disconnect Co	ommunication Settting	Configura	tion Quit
Soft	ware Operati	on	
Soft	ware Operati	on	

## 1.1.1. Connect

Press the **Connect** button to connect the controller with the control PC after the communication setting has been set up in 2.1.3

Please ensure the controller is fully on before trying to connect with the control PC. A beep sound from the controller a few seconds after it having been switched on indicates the controller is ready for connection.

#### 1.1.2. Disconnect

The **Disconnect** button will be active if a controller is connected to the control PC. By clicking the **Disconnect** button, the controller will be able to work standalone without interference from control PC.



#### 1.1.3. Communication setting

This section is used to set up the communication protocol between Control PC and SEADA Video Wall Controller.

ontroller Communication Setting	Communication S	etting	
NET Connection  Device IP  192.168.1.6	COM Connecti	ion COM COM1 * BaudRate 9	9600 *
letwork Check _Config		1.000	
letwork Check _Config	Subnet Mask	MAC	
Ietwork Check _Config	Subnet Mask	MAC	>

Two connection modes are available for setting up the communication.

#### 1) COM Connection

Choose **COM Connection** to enable RS232 serial port connection between Control PC and Video Wall Controller

• BaudRate:9600

#### 2) NET Connection

Choose **NET Connection** to enable the Control PC to control the Video Wall Controller through the network

- The Video Wall Controller's default static IP address is 192.168.1.65
- Port: 1024
- Once the connection setting having been done, click **OK** to save the change and exit.

For COM connection, no further setting is needed.

For NET connection, a change to the IP address of the Control PC is needed



Ethernet Properties	Internet Protocol Version 4 (TCP/IPv4) Properties						
Networking Sharing	General						
Connect using:	You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.						
Configure	Obtain an IP address automatically Use the following IP address:						
QoS Packet Scheduler     Among Adapter Multiplexor Protocol	IP address: 192 . 168 . 1 . 66						
Microsoft LLDP Protocol Driver	Subnet mask: 255 . 255 . 255 . 0						
Link-Layer Topology Discovery Responder	Default gateway: 192 . 168 . 1 . 1						
✓ ▲ Internet Protocol Version 6 (TCP/IPv6)      ✓ Internet Protocol Version 4 (TCP/IPv4)      ✓	Obtain DNS server address automatically						
< >	• Use the following DNS server addresses:						
Install Uninstall Properties	Preferred DNS server:						
Description Transmission Control Protocol/Internet Protocol. The default	Alternate DNS server:						
across diverse interconnected networks.	Validate settings upon exit Advanced						
OK Cancel	OK Cancel						

- Open the 'Ethernet Properties' windows on the Control PC
- Highlight the TCP/IPv4 in Networking and click the Properties button to open the TCP/IPv4 Properties window
- Change the 'Obtain an IP address automatically' to 'Use the following IP address to set up a static IP address
  - IP address: any address between 192.168.1.1 and 192.168.1.255 except the address which has been taken by the Video Wall Controller
  - Subnet mask: 255.255.255.0

Default Gateway: **192.168.1.1.** Click **Connect** button (1.1.1.) to link the Video Wall Controller and Control PC together.

#### 1.1.4. Configuration

solution	Combination Wall			LED Screen Wall	5
OVI Output     OSDI Output	- Combination	Vertical	Horizontal	- LED Screen Wall Parame	ətər
Interlace High Resolution	Screen	1 🗘 X	2 🛟	Width	3520 🛟
1920*1080P@60	Bezel Gap	0 🗘 X	0 🗘	Height	1080 🔹
	Max Win Count	3	0	Log Screen 1	X 1 ~
Adv Timing					

In Configuration the following setting can be changed for setting up the video wall displays

1) Screen configuration

The number of screens and the layout of the screens for the video wall can be set up here

2) Screen resolution



The signal format, resolution and frame rate can be set up in this section.

3) Screen bezel correction

In this section, screen bezel can be compensated to obtain accurate display of the image. Add negative number for overlay needed for edge blending application.

Bezel compensation calculation: Unit: pixel, and assume the parameter as follow Monitor Bezel width: left = a, right = b Monitor Bezel width: top = c, bottom = d Monitor dimension (exclude bezel) = L x H Monitor resolution = x \* y pixel (e.g. 1920 x 1080) Vertical =  $\frac{a+b}{L} * x$ Horizontal =  $\frac{c+d}{H} * y$ 

#### 4) Multi video walls setting

SEADA SolarWall video wall controllers are able to control up to four video walls independently within one system. Simply tick the number of video walls the system needs to control and then set up the video wall individually in each **Configuration**.

5) Set up LED Video Wall

e.g. To set up SW controller for a LED video wall with 3520 x 1080 pixels, controlled using two LED controllers which are supplied with video source from SEADA SW Controller.



- 1. Set up a 1 x 2 LCD screen video wall with 1920 x 1080 and zero bezel correction (1, 2, 3 above)
- Set up LED wall with the total solution of 3520 x 1080 (No.5 in image above)
- Both outputs of SW controller will send out 1920 x 1080 resolution, But the 2nd output with 320 x 1080 pixel at the right side will not show any video source (show black screen) to LED controller 2.
- 4. Use LED controller 2 to crop the 1600 x 1080 from the 2nd output from SEADA SW controller to crop out the black screen section to match the LED screen pixel by pixel.
- 5. Log screen is used to split the LED video wall into certain amount of equal sections for displaying input windows.

#### 1.1.5. Quits

Use Quit button to exit the software



# 1.2. Basic Operation

New Open Close All	Bottom     ImputQutput Card       Top     Group       Test     Background Picture	Wall1 Wall2 Wall3 Wall4	Open Save Loop Refresh Shortcut	Preview	Open Shutdown Screen Screen Screen Params
	Setting	Multi Screen Wall Operation	Layout File Backup	Preview	Screen Control

All the tools in this module are used to create and manipulate the windows of inputs source on video walls. It consists of five groups of tools as following:

## 1.2.1. Setting

2)

#### 1) New Open

Click the **New Open** button to open a window for the highlighted input source onto the video wall. The system will automatically fit the new open window onto one of the displays on video wall.

Two other ways are able to open a new window of input source onto video wall as well by drag & drop and drawing in **Application Toolbar** and **Video Wall Display Area** respectively.

Close All

Clicking the **Close All** button will close all the existing windows on the video wall.

3) Lock

Clicking the **Lock** button will lock the current highlighted window in **Video Wall Display Area** for any change

#### 4) Bottom

Clicking the **Bottom** button will send the current highlighted window to back of other windows in **Video Wall Display Area** 

#### 5) Top

Clicking the **Top** button will send the current highlighted window in front of other windows in **Video Wall Display Area**.

6) Test

This tool provides the ability to test the uniformity of brightness and contrast of the displays across the video wall. The left column and the right column enable user to choose different colour and pattern for test respectively.





#### 7) Input/Output Card

Clicking the **Input/Output Card** button will open the windows showing the configuration of inputs and outputs cards in the system.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
8	8	8	8	8													
	DLink		DLink	Ø													
0				0													
	0	k															
	0																

#### 8) Group

This function offers the chance to have correct channel mapping between outputs of controller and displays of video walls even when the physical channel mapping is incorrect. It offers up to 4 groups of settings. Each group responses to one video wall independently in multi video wall.

e.g. if the output 1&2 of controller accidently connect to display 2&1 of video wall, instead of going through rewiring, the correction can be simply done in **Group** by remapping the channel. In this case map the output 2 to 1 and output1 to 2.

Screen Group Setting										
2 Group3	Group4									
Output 1	Output 2									
Output 3	Output 4									
•	Can	icel Reset <b>OK</b>								
	Sc 2 Group3 Output 1 Output 3	Car								



#### 9) Background Picture

Users can use this function to load a desktop background image onto the video wall. The image must be .bmp @ 24bit format.

	Del Al	Files	Select Image	ок		Cancel	
Back Picture Enable	Screen ID	#Picture N	Name		Startin	Startin	. /
<u>~</u>	1	#[1] Phot	ography_wallpapers_3	0	0		
	2	#[1] Phot	ography_wallpapers_3	0 1			
	3	#[1] Phot	ography_wallpapers_3	0	1		
¢				>			
5	6		7	8			
9	10		11				
13	14		15	16			

Users are able to load new images by clicking Select Image button and press Add button

	Background Image	Processing
ID	File Name	Reset
		Add
		Apply
		ОК

#### 1.2.2. Multi Screen Wall Operation

Once the multi video walls being set up in **configuration** (1.1.4), the number of video walls will be active here. By clicking from wall1 to wall 4 to control the different video walls using one system.

### 1.2.3. Layout File Backup

#### 1) Open

It is used to open an existing layout from the control PC. It can also be done using layout in **Application Toolbar** or shortcut in **Video Wall Display Area**.



•		Open			×
Look in	: 🔒 Layouts		¥	G 🖻 🖻 🗔 -	
Recent places Desktop	Name	¢ ckup.backup uts.scd uts.scd		Date modified 03/11/2014 10:55 03/11/2014 11:42 03/11/2014 11:43	Type File folder SCD File SCD File
This PC	< File name: Files of type:	scd files (*.scd)		~ ~	> Open Cancel

2) Save

It saves a layout with a specific name from user.

	Layout Saving	×
Layout ID	3	
Layout Name		
	OK Cancel	

3) Loop

This offers the function to cycle through the pre-set layouts in a specific time interval automatically allowing users to view each layout in turn.

Click **Loop** to open Loop setting window to choose the pre-set layouts (Figure?-1) for the input contents looping. The time gap (Figure?-2) and sequence of the layouts (Figure?-3) can be set up in this window as well.



		Loop Setting		? ×
ID	Camera Layout ID	Layout Name	1	
1	1	L1_background	-	0
2	2	L2_camera_ful screen	_	
🗌 3	3	L3_single	_	
4	4	L4_Crop	_	
5	5	L5_BR_DVD	_	
6	6	L6_overlay1	_	
7	7	L6_BR_DVD_single	_	
8 🗌	8	L8_Camera1_single	_	
9	9	L9	_	
10	10	10		
Adjust	Sequence UP Down	3 Loo Select All 5 Gelect None 5	p interval	<b>2</b> Minute Second
		OK Stop		

4) Refresh

Refresh the looping

5) Shortcut

To show or hide layout shortcut at the top of Video Wall Display Area.

#### 1.2.4. Preview

To show or hide Preview Toolbar shortcut at the bottom of Video Wall Display Area.

**Note**: In order to make **Preview** function work, a preview output card (P/N: SW-Preview) is needed for the system.

#### 1.2.5. Screen Control

The tools of this section offer users the ability to remote turn on /off the displays of video walls. SEADA has been working with our display supply partners to embed their products in our system. However it is not possible to include all the models of displays on market. So if users would like to use function, please contact our sales for further information.



## 1.3. Tools



## 1.3.1. Management

#### 1) EDID

Press this button will open **EDID Editer** which enables user to create custom EDID file for updating video capture cards.

It is recommended to create a new EDID file from an existing EDID file.

Look in: edid Constraints of the second seco	3	Open					×	
Name         Date modified           1080p@35.dat         17/07/2014 10:41           1080p@60.dat         17/07/2014 10:41           1200p@60.dat         19/01/2015 12:25           2560x1600_3840x2400.dat         05/08/2010 05:35           3072x768_3840x2400.dat         05/08/2010 05:25	Look in: 🔒	edid	~	00	P	·		
□ 1080p@35.dat       17/07/2014 10:41         □ 1080p@60.dat       17/07/2014 10:41         □ 1200p@60.dat       19/01/2015 12:25         □ 2560x1600_3840x2400.dat       05/08/2010 05:35         □ 3072x768_3840x2400.dat       05/08/2010 05:25	Name	*		Date n	nodif	ied	^	
1080p@60.dat       17/07/2014 10:41         1200p@60.dat       19/01/2015 12:25         2560x1600_3840x2400.dat       05/08/2010 05:35         3072x768_3840x2400.dat       05/08/2010 05:25	1080	p@35.dat	17/07/2014					
1200p@00.dat     19/01/2015 12:25       2560x1600_3840x2400.dat     05/08/2010 05:35       3072x768_3840x2400.dat     05/08/2010 05:25	1080	p@60.dat		17/07/	2014	10:41		
3072x768_3840x2400.dat 05/08/2010 05:25 v	2560	p@60.dat x1600_3840x2400_dat	05/08/2010 05:35					
< >	3072	x768_3840x2400.dat		05/08/	2010	05:25	~	
	<		l)				>	
File name: Open	File name:	I				Open		
Files of type: EDID DAT file (*.dat)	Files of type:	EDID DAT file (*.dat)		~	Г	Cance		

Ensure the **Designer** is on modify mode by clicking the *L* in tool bar. Users can change the **H Active PxI** and **V Active Lines** in **Block 1** of **Detailed Timings** to set up new resolution for EDID

	3 🍏 =	<b>&gt;</b>						
eral Basic Displa	y Paramet	ers Color / Estab	lished Timings	Standard Timings	Detailed Timings			
)escriptor Block				Desci	iptor Block Type			
Block 1	Block	2 O Block	3 () Blo	ock 4	Timing	Monitor		
llock #1								
Timings				Stereo Display				
Pixel Clk:	195	Interla	ced 📃	None (Noma)	l) 🔵 2-way, R d	on even		
H Active Pxd:	3072	V Active Lines:	768	FS, R on sync 2-way, L on even				
H Blank:	960	V Blank:	38	FS, L on sync Side-by-Side     Away				
H Sync Offset:	72	V Sync Offset:	6	Sunc Schama				
H Sync Width:	408	V Sync Width:	6	Analog				
H Image Size:	519	V Image Size:	324	O Analog Bipola	r V Polarity	(+)		
H Border:	0	V Border:	0	<ul> <li>Digital Composite</li> <li>H Polarity (+)</li> <li>Digital Separate</li> </ul>				



### 2) Users

User authority can be managed here. Three different levels of access authority can be set up here.

Admin level

- Advanced Users
- Users

User Name	Туре	Screen Wall IE	ADMIN	-
ADMIN	Admin	ALL	User	
User	Users	-	Password	
			Re password	
			User Type Admin	
			Admin Advanced Users Users	
			0000	
			Add Edit De	
<		>		

## 3) Find Camera

This function allows users to find all the IP cameras connected to the system.

	Find	I Network Camera
		Find Cancel
ID	Name	GUID
1	ip1	rtsp://admin:@192.168.1.60/live1.sdp
<		2

## 1.3.2. Layout File Backup

1) Export

This function enables users to export all the pre-set layouts for future reference.

2) Import

This function enables users to import the pre-set layout file from previous control PC.



#### 1.3.3. Language

Use the drop down list to select the preferred language rather than English



## 1.3.4. Version

It shows the version information for the control software and firmware of the cards in the system.

Ine OLED SOFT Version is 0000>	
⊡- Input Card List	
- Input Card 1	
The input FPGA Version is 1002> <the 8001="" input="" is="" soft="" version=""><the< p=""></the<></the>	nput FPGA Date is e318>
🗇 Input Card 2	
The input FPGA Version is 1002> <the 8001="" input="" is="" soft="" version=""><the< p=""></the<></the>	nput FPGA Date is e318>
🖃 - Input Card 3	
The input FPGA Version is 1002> <the 8001="" input="" is="" soft="" version=""><the< p=""></the<></the>	nput FPGA Date is e318>
🔄 Input Card 4	
The input FPGA Version is 1002> <the 8001="" input="" is="" soft="" version=""><the< p=""></the<></the>	nput FPGA Date is e318>
🔄 - Input Card 5	
	nput FPGA Date is e507>
🖨 Input Card 7	
	nput FPGA Date is e507>
🖨 Input Card 9	
	nput FPGA Date is e318>
🗇 Input Card 10	
	nput FPGA Date is e318>
- Input Card 11	
	nput FPGA Date is e318>
- Input Card 12	
The input FPGA Version is 1002> <the 8001="" input="" is="" soft="" version=""><the< p=""></the<></the>	nput FPGA Date is e318>
🖶 Input Card 13	
í literatur a l	>



# 2. Application Toolbar

							ntroller	Softwa	re[Dis	connect	ed]											- 0	
Software Operation Basic Operation 1	Tools																						
Connect Disconnect Communication Configuration Setting Software Operation	on Quit																				Hardware I	D:	
Signal Management																							
Controller		1	10 1		10 10	-	1 1/	1	10	17 17	17 17	1	10 10	10	C 10	10	10 10	10	10 10	10	1 10 10	10 10	
BR-DVD	1	2 3	3 4	5 6	5 7	8 9	10	11 12	13	14 15	16	17 18	3 19	20 21	22	23 24	25	26 27	28	29 30	31 32 3	3 34	35 ×
PC																							
Iphone Iphone SignalSource5 SignalSource6 SignalSource7							1			2			3			4							
SignalSource8						22	5			6			7			8							
SignalSource12 SignalSource13 SignalSource14 SignalSource14						0	)			10			11			12							
Figure 20 Grand 1.1     Figure 20 Grand 1.2     Figure 20 Grand 1.2     Figure 20 Grand 1.2     Figure 20 Grand 1.2     Figure 20 Grand 1.4						1	13			14			15			16							
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20 21		
C and Management				-		~				1				-	-	-		]	1	][			-
Si nai Management	olau	2	23		25		27	28	29		31	32	33		35	36	37	38	39	40	41 42	_	3 141
Comment list	play	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62 63		
>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	Preview	w Encode	er 1	Preview	Encoder 2	2													n				ser

# 2.1. Signal Management

The **Signal Management** window displays a list of input content windows that can be displayed onto the video wall. The system will automatically identify the type of source and display it under the PCB Icon for each input

ignal Managemei	nt
E-Cont	roller
÷	BR-DVD
	PC
E CVB	lphone
DVI-D	SignalSource5
DVI-D	SignalSource6
BB) SD	SignalSource7
BB SD	SignalSource8
HDM	SignalSource9
HOM	SignalSource10
	SignalSource11
	SignalSource12
CVB	SignalSource13
CIVE	SignalSource14
Fibe	SignalSource15
Fibe	SignalSource16
Signal Manageme	ent
Layout	
Camera List	
the second s	



#### 2.1.1. Open a window

Use the mouse to select the required input and then drag & drop to a preferred position on the Video Wall Display Area. The system will automatically fit the new open window onto one of the displays on video wall.

Or select the required input and then click the New Open button in Basic Operation module on Toolbar.

Or select the required input and then draw a window on the Video Wall Display Area.

#### 2.1.2. Cropping

This function allows user to display a specific area of the input signal content onto the video walls.

- 1) Highlight the input signal and right click to open the drop down menu
- 2) Choose Add Mode in the list to open the cropping window

SignalSource	e8
BIGHT SignalSo	Input Signal Group Switch OSD Update EDID
SignalSo	Modify Name
E SignalSo	Add Mode
🗄 📲 🙀 SignalSource	eio

3) In cropping window, there are five parameters for users to define the cropped window

S	ource Image Cropping Mode
Mode Name	SEADA
H Start	0 Width 959
V Start	0 Height 539
v Start	
	OK Cancel
a. Mode Nan b. H Start:	ne: ensure unique name for each cropped window Pixel location of start point for horizontal axis

- c. V Start: Pixel location of start point for vertical axis
- d. Width: the width of cropped window (unit: Pixel)
- e. Height: the height of cropped window (unit: Pixel)
- 4) Once the parameters having been set up, press **OK** to create the cropped window
- 5) The created cropped windows will be displayed under the parent window



🛲 📾 🖬 SignalSource8	
🚊 🛲 🚮 SignalSource9	
SEADA	
SignalSource10	
🖼 📅 SignalSource11	
🛲 📰 📅 SignalSource12	
Bov SignalSource13	
SignalSource14	
🗄 🛱 🚛 SignalSource16	

## 2.1.3. On Screen Display (OSD)

This function will enable users to display an on screen dialogue for each window on video wall.

1) Right click the input window in Signal Management and then choose OSD in drop down menu to open the **Screen OSD Information** window.

Signal Some	0
SignalSo	Input Signal Group Switch
SignalSo	OSD
SignalSo	Update EDID
SignalSo	Modify Name
BOVI-DL SignalSo	Add Mode

2) In Screen OSD Information, users are able to create the OSD in specific format

Colour of the Text

- a. Input Information: Enter the message here for OSD text
- b. Font Height: Size of the OSD text
- c. Font:
- d. Front Color:
- e. Back Color:
- f. H-Position:
- Define the horizontal position of OSD (unit: pixel)

Determine the characteristics of the font for OSD text

g. V-Position: Define the Vertical position of OSD (unit: pixel)

OSD text background colour

- h. OSD Mode:
  - I. OSD Mode1 No OSD shown on screen
  - II. OSD Mode2 OSD without background
  - III. OSD Mode3 OSD with background



Screen OS	D Information		×
Input Information			
Font Height 72 Font Front Color Back Color	H-Position V-Position OSD Mode	1234 1234 OSD Mode2 OSD Mode1 OSD Mode2	
Apply	OK Cancel	OSD Mode3	

## 2.1.4. Change the display name of input source

This function will enable users to customize the input signal window name in **signal** management window.

1) Right click the input window in Signal Management and then choose **Modify Name** in drop down menu to open the **Modify Signal Name** window.

SignalSource	ce8	
SignalSo	Input Signal Group Switch OSD Update EDID	
SignalSo IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Modify Name Add Mode	
H SignalSource	ceito	

2) The default name for each input signal is 'SignalSource' with unique number. The users are able to re-define the name of each input signal for future reference

Modify	Signal Name	×
ID:	9	
Туре		
Name	SignalSource9	
ОК	Cancel	

#### 2.1.5. Change EDID on video capture cards

This feature allows users to update the EDID on input cards to a pre-set EDID to obtain a specific resolution and ratio input signal.



1) Right click the input window in Signal Management and then choose **Update EDID** in drop down menu to open the window showing the list of available EDID setting in system.

SignalSource	e8	
SignalSo	Input Signal Group Switch	
SignalSo	OSD	
BignalSo	Update EDID	
SignalSo		
BUT-DL SignalSo	Modify Name	
SignalSo	Add Mode	
E SignalSource	eio	

2) All the pre-set EDID will be displayed in the windows. Customized EDID is able to be obtained by using **Phoenix EDID Designer** in **Tools** (1.3.1)

		Open			×
Look in:	鷆 edid		v G	) 🏚 📂 🎞 🕇	
æ	Name	*	Da	ate modified	Туре
	1080p@3	5.dat	17	/07/2014 10:41	DAT File
Recent places	1080p@60	).dat	17	/07/2014 10:41	DAT File
	1200p@60	).dat	19	/01/2015 12:25	DAT File
	2560x1600	_3840x2400.dat	05	/08/2010 05:35	DAT File
Desktop	3072x768	3840x2400.dat	05	/08/2010 05:25	DAT File
Libraries					
Marka International Internatio					
Network	<				,
	File name:			¥	Open
	Files of type:	Edid Files (*.DAT)		~	Cancel

- 3) Open the EDID file to update the EDID of the video capture channel. A dialog window will be shown to indicate that the EDID update is succeeded.
- 4) Unplug and plug the signal cable to enable the capture source read the new EDID.



## 2.2. Layout

In layout, it lists all the pre-set layouts of the video walls for users to manipulate from.

Layout				
ID	Layout Name		^	2 3 4
🏶 1	Layout1			
🏟 2	Layout2			
🏟 3	SEADA Logo ful	lscreen		
🎡 <mark>4</mark>	IP camera centr	e		
🌼 5		Open		
🏶 G		Save		
🏶 7		Modify		
🌼 8		Delete		
🏶 9				
🌼 10				

## 2.2.1. Open a layout

There are two ways to open a pre-set layout in Layout

- 1) Use mouse to double click the layout using mouse left button
- 2) Right click the mouse onto the layout and choose **Open** in drop down menu

#### 2.2.2. Save a layout

This allows user to save a modified a layout over an existing layout or save it as new layout. Right click the mouse onto the layout and choose **Save** in drop down menu.

#### 2.2.3. Modify a layout

This feature allows users to modify the name of existing layouts only

#### 2.2.4. Delete a layout

This feature allows users to delete the existing layouts

## 2.3. Camera List

In this section users are able to set up the entire IP input source for system to decode and capture RTSP IP signals. SEADA IP-IN-IP8 IP decoder card is able to decode & capture up to 8 channels of 1080P or 16 channels of 720p or 36 channels of D1 IP sources.



Camera List
Find Refresh
Camera List
Signal Management
Camera List

#### 2.3.1. Set up the IP input signals

Before going any further, ensure the RTSP address of the IP signal has been obtained either through IP camera manual or suppliers.

For example: D-Link-2230 has the RTSP address of **rtsp://x.x.x.x/live1.sdp** where the **x.x.x.x** represents the IP address of the camera. Therefore the RTSP address for SolarWall video wall controller is **rtsp://a:b@x.x.x.x/video1.sdp** where **a** represents username and **b** represents password for the camera. If there is no password, please leave **b** empty.

Note: if the rtsp address for SolarWall system does not include username and password, the system will ask for username and password every time when the IP camera being used.

- Using the software coming with the device to set up the IP address of each device to match the IP group of SolarWall Controllers (the default IP address for SW controller is: **192.168.1.65**). Ensure each input has a unique IP address in the system.
- Use free download software of VLC media player to test the RTSP address of devices to ensure the RTSP address is valid. Ensure the cameras connect to control PC and IP cards at the same time through Ethernet switch, not connect to IP cards port directly.

Assume the IP address of D-Link-2230 is **192.168.1.60** and the username is **admin** without password, the RTSP address for this IP camera is **rtsp://admin:@192.168.1.60/live1.sdp** 

The below setting will open the IP streaming from this D-Link-2230 IP camera



<u>غ</u>			🛓 Open Media ? 🗙
Med	ia Playback Audio Video	Subtitle Tools	File Obic Statement Retwork Capture Device
	Open File	Ctrl+O	Please enter a network URL:
	Open Multiple Files	Ctrl+Shift+O	http://www.example.com/stream.avi repi@1224
	Open Folder	Ctrl+F	mms://mms.examples.com/stream.asx rtsp://serverexamples.com/s0808/best.sdp http://www.yourtube.com/watch?v=gg64x
۲	Open Disc	Ctrl+D	
<u>.</u>	Open Network Stream	Ctrl+N	
	Open Capture Device	Ctrl+C	
	Open Location from clipboard	Ctrl+V	Show more actions
	Open Recent Media		Play   Cancel

3) Right click the **Camera List** and choose **Add Camera** to open a **Camera URL Property** dialog window.



4) In **Camera URL Property** dialog window, user defines the unique name for each camera in **Camera Name** and enter the RTSP address for the camera

	Camera URL Properity	×
Camera ID: Camera Name	2 0 TP camera 2	
Camera URL:	rtsp://admin:@192.168.1.60/live1.sdp	
Access Mode	✓ PTZ	
IP	Port	
Name	Password	
	OK Cancel	



5) Click **OK** to add the IP camera into the list. Do the same procedure for the other IP source to add them into the camera list

Find Refresh
Camera List
Signal Management
Layout
Camera List

#### 2.3.2. Set up the IP Decoder Cards

- 1) After all the IP cameras having been added into Camera List, users need to go to **Signal Management** window to link the IP camera with IP capture channel accordingly.
  - a. SEADA Technology IP decoder card has two physical RJ45 connectors and each connect shows two inputs channels in Signal Management window. Each channel is able to decode & capture up to 2 1080P or 4 720P or 9 D1 IP sources
- 2) Right click on the SignalSource where the IP camera is connected to and choose **Decode Property** to open **Network Decoder Property** dialog window.

	Network D	ecoder Properity :	
	rtsp://admin:@192.168.1.60/live	1.sdp	
URLU:	rtsp://admin:@192.100.1.00/ive	1.sdp	
	rtsp://admin:@192.100.1.00/ive	1.sdp	
URLZ:	rtsp://admin.@192.100.1.00/ive	1.sdp	
URLD:	rtsp://admin:@192.168.1.60/ive	1.sdp	
URL4:	rtsp://admin.@192.100.1.00/ive	1.sup	
URLD:	rtsp://admin:@192.168.1.60/ive	1.sup	
URLD:	rtsp://admin.@192.100.1.00/ive	1.sup	
URL7:	rtsp://admin:@192.168.1.60/live	1.sap	
URL8:	rtsp://admin:@192.168.1.60/live	1.sap	
100	(c)		
ID UF	8L		
<	Adv<< OK	Apply SubnetMask:	Cancel 255.255.255.0
<	Adv<< OK 192. 168. 1. 11 192. 168. 1. 254	Apply SubnetMask: MAC:	Cancel 255.255.255.0 10:0C:29:98:D6:04



- 3) Click **Adv**<< button to set up the IP address for each IP decoder card to match the IP group of IP cameras. (e.g. IP address of camera is **192.168.1.60**)
  - a. IP: 192.168.1.x x represents a number between 1 and 255 which has not been used by any other device in the system
  - b. SubnetMask: 255.255.255.0
  - c. GateWay: 192.168.1.1
  - d. MAC: obtain automatically

**Please note:** each SEADA IP decode card needs two unique IP addresses and one for each physical RJ45 connector respectively.

After having entered the IP address for each card, press **Modify IP** button to change the IP address.

- 4) Choose the Decode Mode
  - 1 Mode each channel capture 1 IP source up to 1080p
  - 2 Mode each channel capture 2 IP source up to 1080p
  - 4 Mode each channel capture **4** IP source up to 720p
  - 9 Mode each channel capture **9** IP source up to D1
  - Users are able to choose the decode mode in Adv<< of Network Decoder Property
  - Or users are also able to choose the decode mode by right clicking the IP window in Video Wall Display Area to choose the mode in IP Decoder Mode in drop down menu Right click the IP window in Video Wall Display Area to choose the mode in IP Decoder Mode in drop down menu

	IP Decorder Mode  Top Bottom Property	1-Mode 2-Mode 4-Mode 9-Mode
<b>v</b>	Stop Window Preview Start Window Preview FullScreen MaximumInUnit	
12	Restore Close Lock	16 17
	CloseAll	

- Once the IP address and decode mode has been set, the IP decoder card is ready to be linked to IP cameras accordingly. There are two ways to link them together
   a. Drag and drop
  - I. Open one IP window from Signal Management to Video Wall **Display Area**. It will be a black window since there is no IP camera input on this channel.



1	Win-0	0	3	 020>	٩
5					
	8				
9	2				
13	3				
					_

- II. And then go to camera list to drag the IP camera and drop into the window to form a link.
- b. Enter rtsp address

Enter the rtsp address of IP cameras in **Network Decoder Property** accordingly

	Network Decoder Properity :
URL0:	rtsp://admin:@192.168.1.60/live1.sdp
URL1:	rtsp://
URL2:	rtsp://
URL3:	rtsp://
URL4:	rtsp://
URL5:	rtsp://
URL6:	rtsp://
URL7:	rtsp://
URL8:	rtsp://
ID	URL
<	>
-	



# 3. Video Wall Display Area

In Video Wall Display Area, users are able to manipulate the windows on video walls.



## **3.1.** Resize a window

- 1) Use the mouse to highlight the window and move the mouse to the border of the window. The cursor will be changed to a resize cursor.
- 2) Press and hold the left mouse button and drag the border to resize the window to required size
- 3) Click the **fit in** button on title bar to automatically resize the window to fit the grid area (each window is divided into 4 even grids) where the window was in.

## **3.2.** Restore a window

- 1) Either click the **Restore** button on the title bar to restore the window
- 2) Or right click the window and then choose restore in the drop down menu





## 3.3. Move a window

- 1) Use the mouse to highlight the window and position the cursor on the window
- 2) Press and hold the left mouse button and drag the window to the required position, and release the mouse button

## 3.4. Full Screen

- 1) Either click the Full Screen button on the title bar
- 2) Or right click the window and then choose FullScreen in the drop down menu



# 3.5. Pre-set layout shortcut bar

This is the shortcut of layout in **application ToolBar**. It shows the first 40 pre-set layouts having been saved by users. The numbers in the bar are the ID of each pre-set layout. Left click each number will load the layout under that ID number.

1 2 3 4 5 6 7	8 9 10	11 12 13	14 15 16	17 18	19 20 21	22 23	24 25 26	27 28 2	29 30 31 32 33 34 35 36 37 38 39 40
	1	2	2		3		4		]

# 3.6. Set up output sync mode

Right click the empty video wall display area window and then choose 'Screen Syn Mode' in the drop down menu.



Screen Syn Mode		×
○ Normal/HD O ○ Asyn mode	utput O Syn mode	○ 4K/Super HD Output ○ Syn delay
	Apply Quit	



•

•

- Normal/HD output Choose this mode when HD output card being used
- 4K/Super HD Output Choose this mode when 4K output card being used, even used as HD
- Asyn mode Outputs will not be forced to sync
- Syn mode All outputs will be synced
- Syn Delay Signals are delayed on different screens to compensate raster scan

# 3.7. Change screen wall name

Right click the empty video wall display area window and then choose 'Set Screen Wall Name' in the drop down menu to change the current video wall's name for clarification.







# 4. Preview Toolbar

Preview Toolbar is able to display up to 128 input signal preview windows to enable users to check the input source before putting them onto the video wall by using a preview card (SW-Preview). The preview card is also able to capture the video wall screen and display it on SW-Control software



## 4.1. Set up Preview

## 4.1.1. Set up the connection of preview card

A preview card is connected and managed by control PC via IP. The default IP address for preview card is 192.168.1.85. Ensure the IP address does not conflict with other IP addresses in the same system.





Connect the SW-Control software with the controller through Ethernet Switch and then press **Play** button at the left corner to get all the preview images of all input signals.



#### 4.1.2. Preview window function

- 1) Double click each preview window to open a larger single window to enable users to observe more detail
- 2) Users are able to drag and drop to open the windows in Video Wall Display Area from Preview window

## 4.2. Change the Preview setting

Press the **set** button at the bottom of right corner to open the setting dialog window. Users are able to change the IP setting and the resolution of the preview image.

IP	192, 168, 1,85
Resolution	1920*1080@30p V
MAC	02-0C-FF-95-D7-D8
Gateway ip	192.168.1.254
Subnet Mask	255.255.255.0



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