iWall M4

Modular Video Wall Controllers

Quick Start Guide V1.0

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1. INTRODUCTION

The **iWall M4** series video wall controller is a high-performance seamless switching video processing equipment for LCD and LED wall. Adopting pure-hardware FPGA architecture, it delivers high quality signal images and real-time videos. At the same time, it supports windows arbitrary layout, stretching, scaling, roaming and picture in picture. Furthermore, it employs modular design for personalized combination and future expansion, which is a reliable and flexible product for a video wall up to 76X72 (inputs x outputs) in meeting room, show room, command center and data center etc.

2. FEATURES

- 4 windows (layers) on each display
- 4K60Hz signal input
- Multiple video wall groups (up to 4x video walls)
- Signal preview and monitoring
- High resolution background image
- Scrolling text function
- Text overlay on the input source
- With touch screen on the front panel
- Supports redundant PSU (Power Supply Unit)
- Supports RS232, IP and Web GUI controls
- Supports input signals renaming, cropping, text overlay.
- Support Full HD, 4K UHD inputs and Full HD outputs
- Supports multiple formats inputs and outputs such as HDMI, DisplayPort, DVI, IP streaming
- Supports max. 76X72 inputs x outputs
- Supports both LCD and LED video wall
- Supports windows arbitrary layout, stretching, scaling, roaming and picture in picture
- Supports presets save, recall and auto-cycle
- Supports user's role management
- Supports IP camera decoding and streaming
- Supports videowall ON/OFF control
- Supports Bezel Compensation
- Supports drag-and-drop video layers operation
- Supports firmware upgrade
- Pure-hardware design, without Windows OS vulnerability, virus risks, bluescreen errors
- Supports seamless switching input signals
- Supports adaptive input/output slots

3. PACKAGE LIST

1x iWall M4 Modular videowall controller

1x AC Power Cord

1x USB TO RS232 Cable

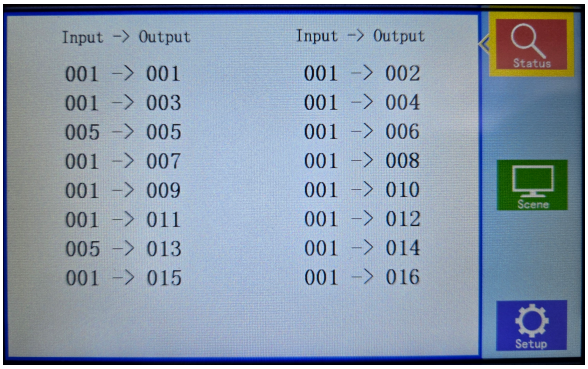
4. HARDWARE

4.1 FRONT PANEL

Example: ***iWall M4-C1609***

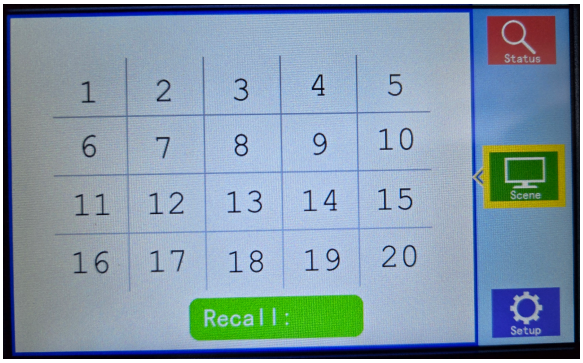
There is one touch screen on each model front panel. When the user power on the **iWall M4** or the screen is not be touched for 12 or more seconds, the screen then displays the following splash image.

Touch the screen, and the following interface pops up.



Status

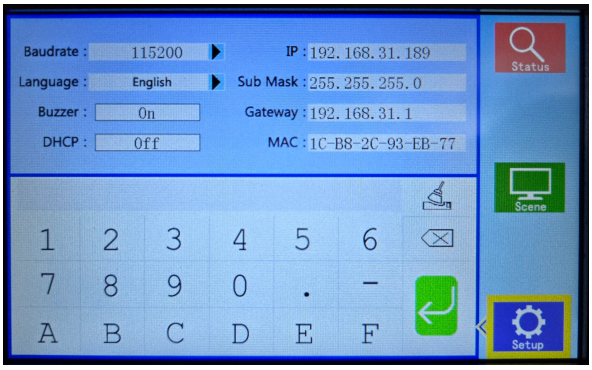
The user can see the correspondence between inputs and outputs.



Scene

Touch the number and then **'Recall'** menu to recall the saved scene.

e.g. Click the number **'3'** and then **'Recall'** to enable the scene 3.



Setup

[Baud rate]: There are 4 baud rate options, **4800, 9600,19200 and 115200**.

[Language]: There are two language options, **Chinese and English.**

[Buzzer]: Turn on or off the buzzer sound when operating the device.

[DHCP]: Turn on or off the IP automatic search of the device control port.

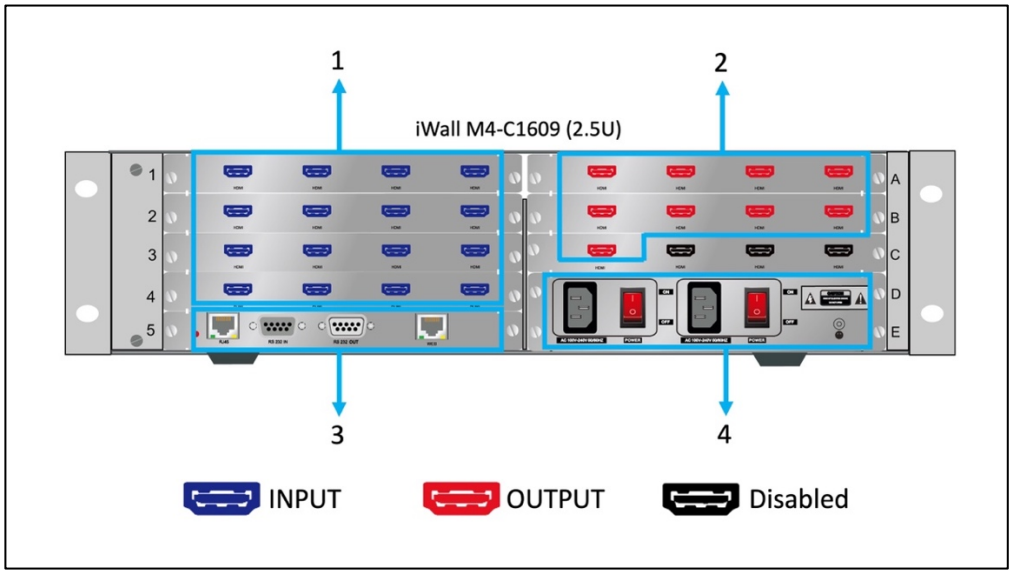
[IP]: Modify the fixed IP

[Subnet mask]: Modify the subnet mask

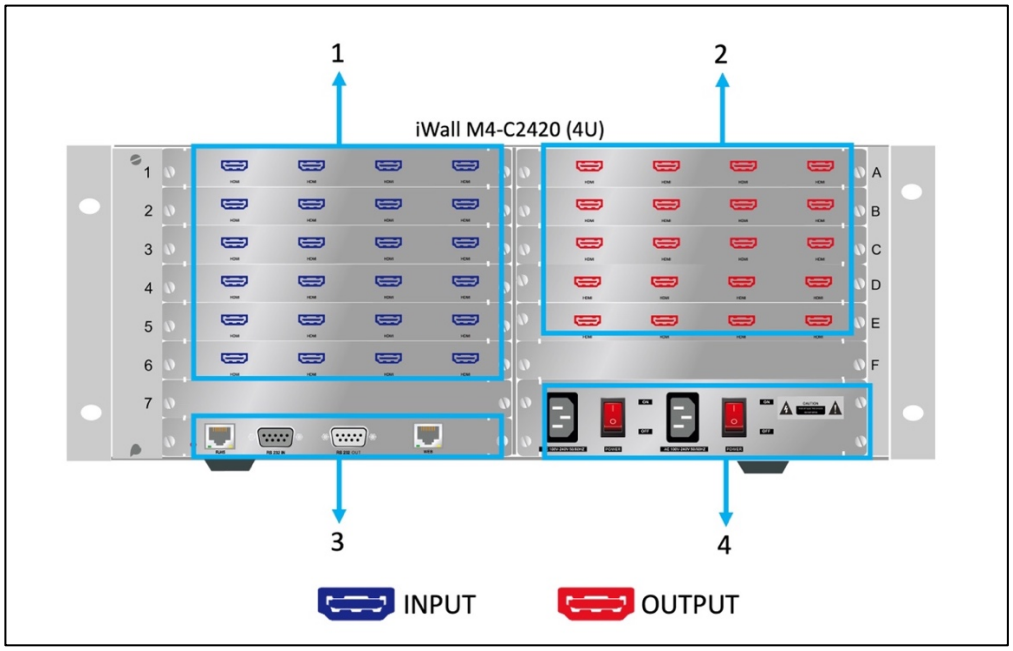
[Gateway]: Modify the gateway

[MAC address]: View MAC address

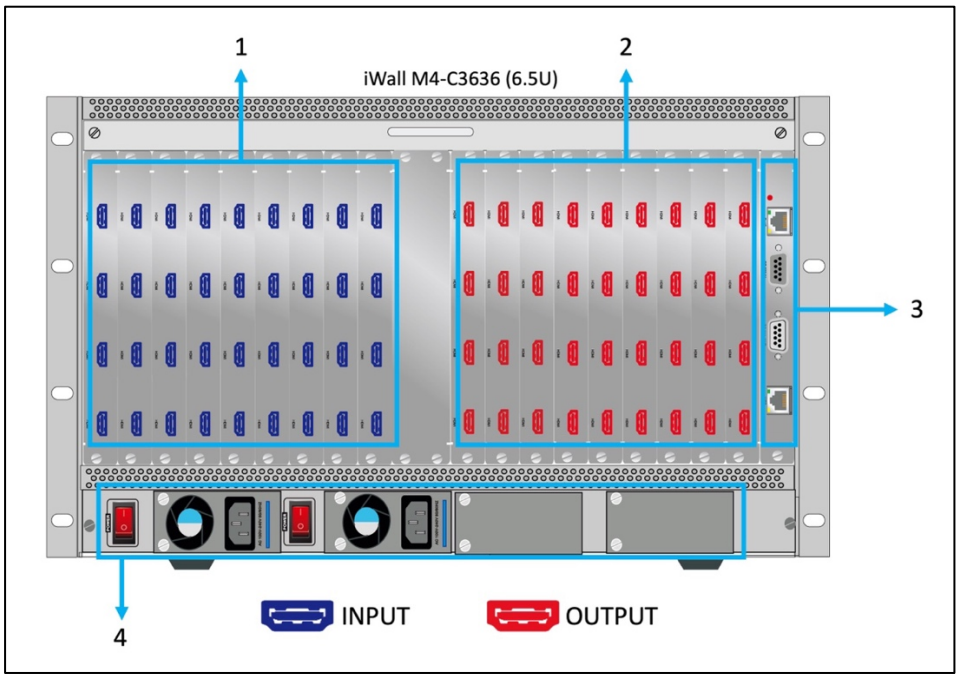
4.2 REAR PANEL



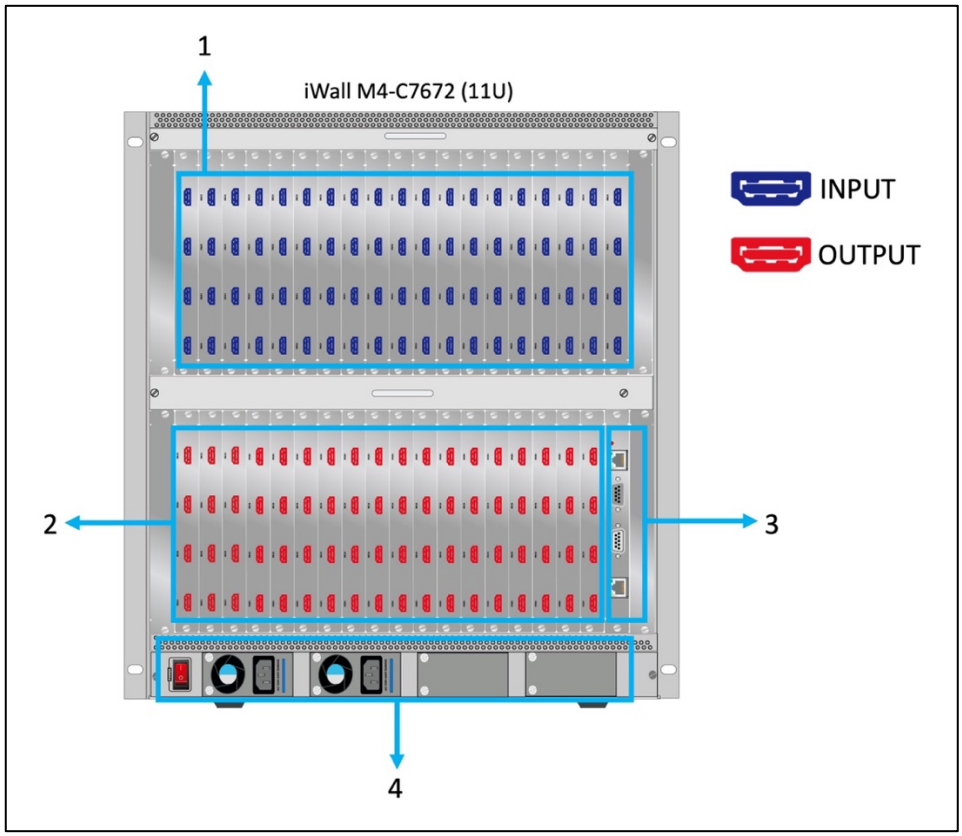
Model: iWall M4-C1609



Model: iWall M4-C2420



Model: iWall M4-C3636



Model: iWall M4-C7672

1	INPUT Ports	Input interfaces to be connected with external signals.
2	OUTPUT Ports	Output interfaces to be connected with video wall displays.
3	Control Card	1x RJ45 Control, 1x RS232 IN, 1x RS232 OUT, 1x RJ45 WEB
4	Power Supply	AC100~240V 50/60Hz, Redundant power supply

5. SOFTWARE

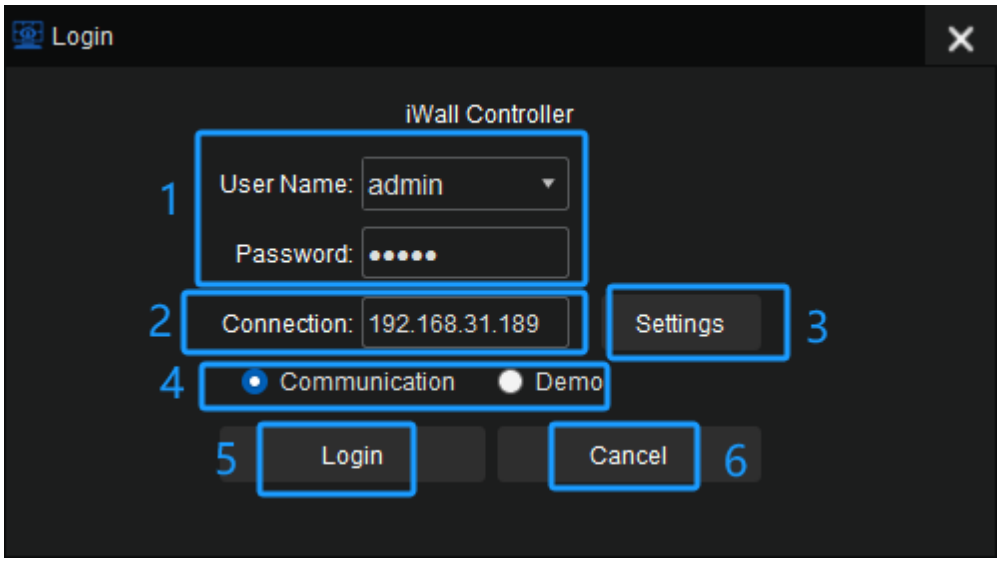
5.1 SOFTWARE INSTALLATION

Please visit www.infobitav.com/iwall-m4 to download the controller software and install. The **iWall M Controller Software** is Microsoft Windows based.

After installation, double-click the shortcut to run the software.

5.2 LOG IN AND SETTINGS

5.2.1 LOG IN



Run the control software **"iWall M4 Video Wall Controller Software V25.3.18 or latest version".**

1: Log in using the default account settings. Username: **'admin'**, password: **'admin'.** Or select **User** and input **User's password** which is setup in the software by the Admin.

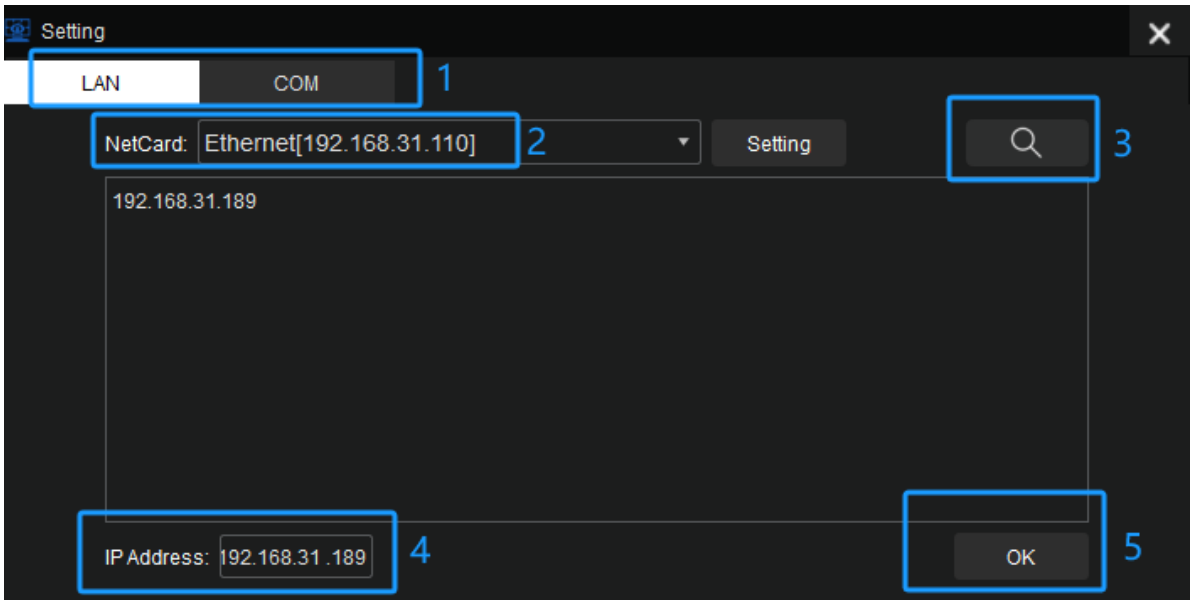
2: Here list the **iWall M4 IP address**.

3: Click the button **'Settings'** to set the connection.

4: Check **Communication** to control the **iWall M4** or check the **Demo** to try the software offline if you need to make brief training or demo.

5: Click **Login** to enter the software

6: Click **Cancel** to quit your operation.



1: Select connection methods via **LAN** or **COM**.

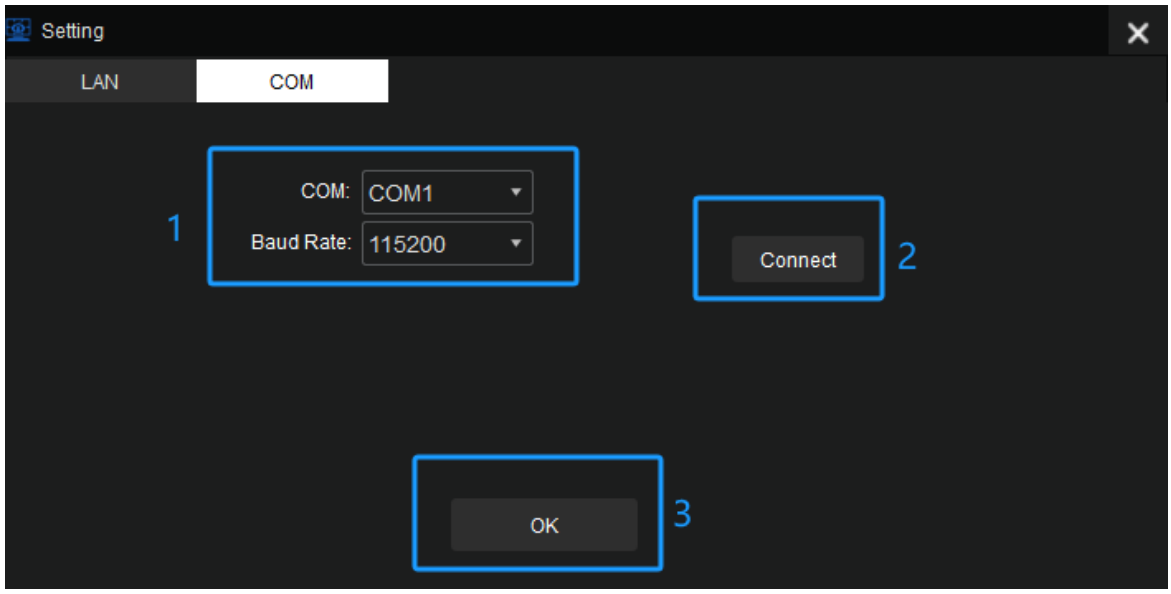
2: Select your control PC IP address, please make sure select the right IP address which is in the same Sub Network with the **iWall M4** IP. For example, the iWall M4 IP address is **192.168.31.189**, then the control PC IP should be **192.168.31.xx.**

The IP address can be checked or changed via the hardware touch panel on the front panel.

3: Click the **Search** button to automatically detect the **iWall M4** address and select.

4: Here will list the right IP address of **iWall M4** you selected.

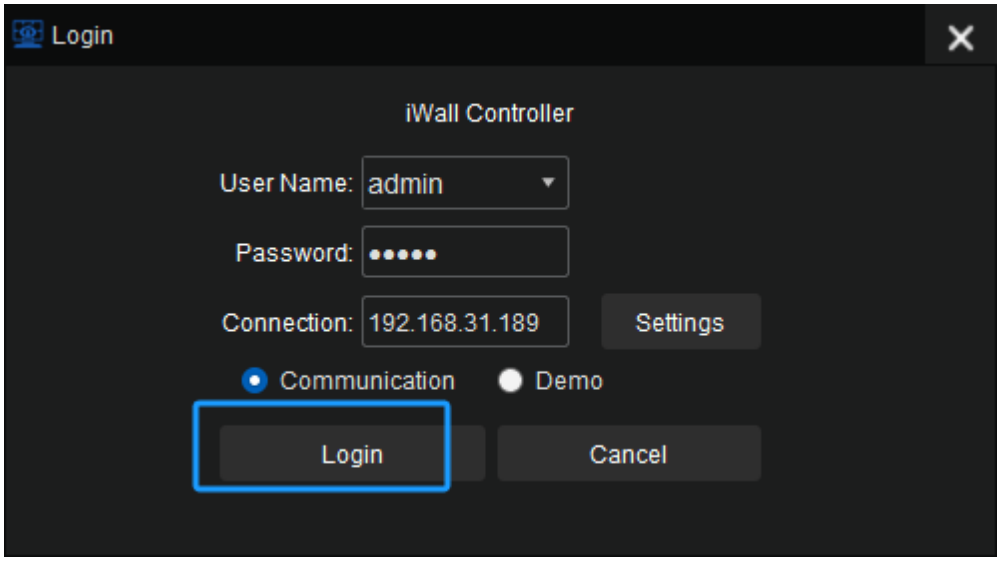
5: Click **OK** to connect.



1: Select the **COM** port. Select the right **Baud Rate** which can be checked or changed via the touch panel on the **iWall M4** front panel.

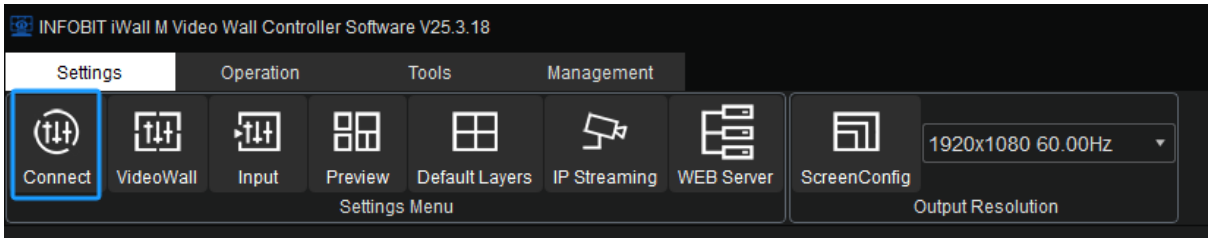
2: Click **Connect** to start connection.

3: Click **OK** to confirm.

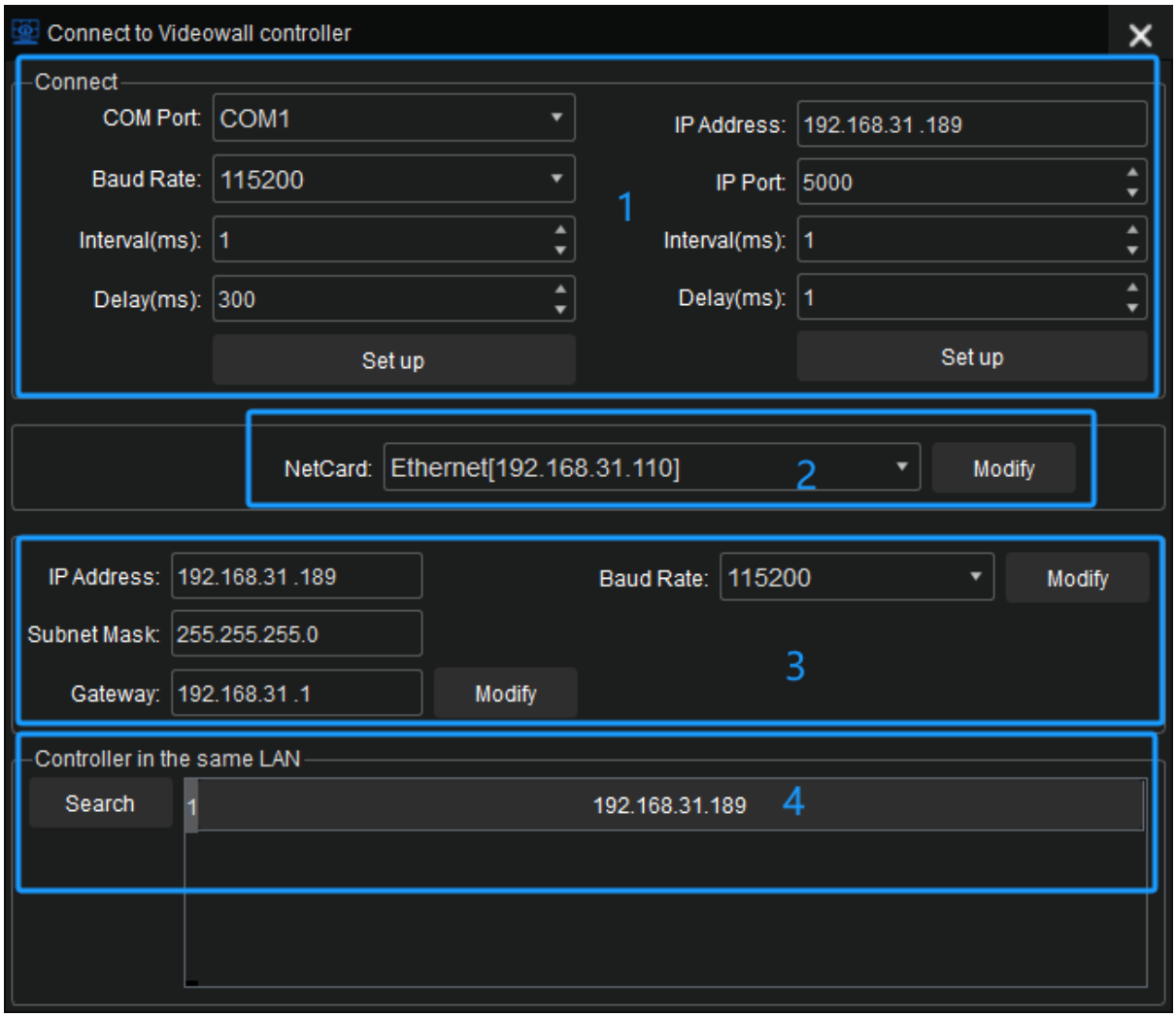


Then click **Login** button to enter the software. Shown as above.

5.2.2 Connect settings



To configure the connection settings. Click the **'Connect'** icon in the top navigation bar.



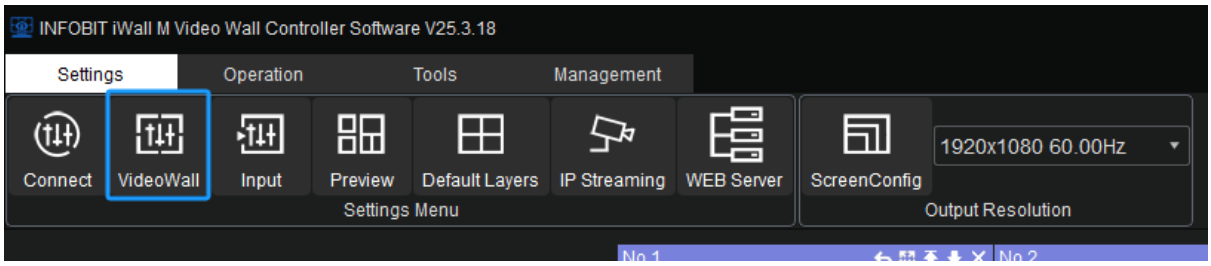
1: Choose to connect by **network** or **serial port**, enter relevant information, then click **'Set up'.** Then restart the software.

2: Setup the local IP address of the control PC.

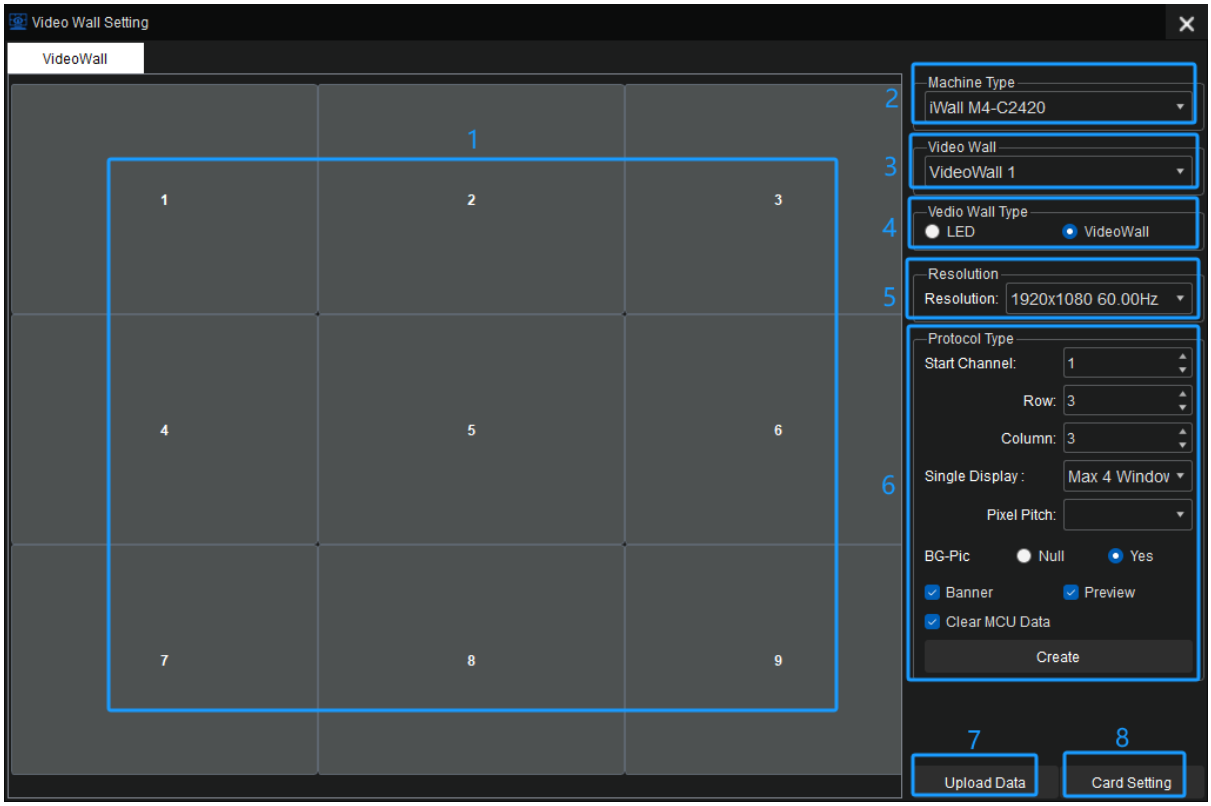
3: **Setup the iWall M4 IP Address:** The IP address of the unit can be set statically from the connection settings window as shown in figure below. Simply enter the desired IP address and then press **'Modify'.** This address also can be changed via the touch panel on the **iWall M4** front panel.

4: Click **Search** to automatically detect the IP address you have changed.

5.2.3 VideoWall



Click the **VideoWall** button to setup videowall layouts, resolution, and more.



1: Video Wall layouts canvas.

2: **Machine Type:** Select the right **iWall M4** models.

3: **Video Wall:** Setup the **videowall groups**, it supports max. 4 groups.

4: **Video Wall Type:** Supports either **LED** or **LCD** video walls.

5: **Resolution:** select the right video resolution of each display or LED receiving card.

6: **Protocol Type**

Start Channel: to select which layer channel starts for this video wall group. For example, if Videowall group #1 (2x2 four-display videowall, each display 4 windows layers, total will be 16x layers) take channel 1 to 16, then can setup group #2 start

from channel 17. For only one videowall group, then select start channel 1 as default.

Row and Column: Setup the videowall layouts for this videowall group.

Single Display: select the video layers on each display.

Pixel Pitch: Set the pixel pitch of LED wall.

BG-Pic: Enable or Disable the **Blackground Picture**.

Banner: Enable the **scrolling text**.

Preview: Enable the input video signals previewing.

Clear MCU Data: To clear the MCU data.

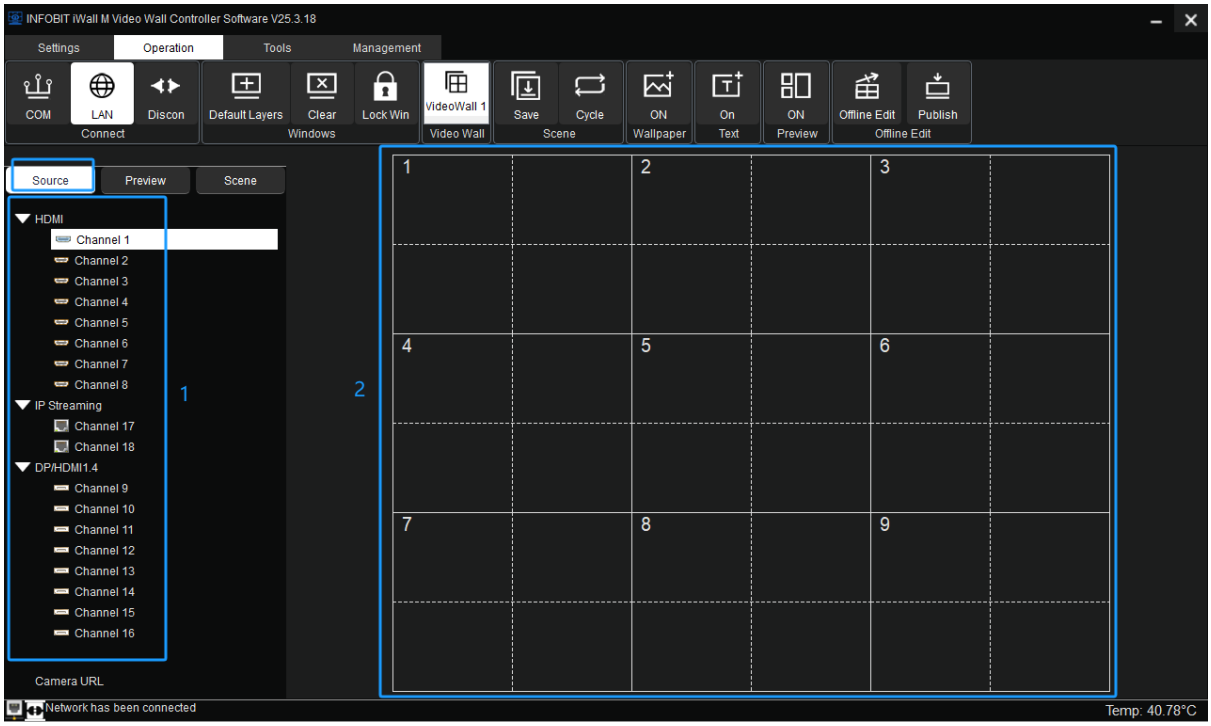
Create: To create the desired videowall layouts temporarily.

7: **Upload Data:** Click to upload your settings to the hardware to enable all settings. Note: This button must be clicked after creating the layouts, otherwise the setup will not take effect.

8: **Card setting:** to setup output cabling mapping or LED receiving card parameters.

5.3 INPUT SOURCE OPERATION

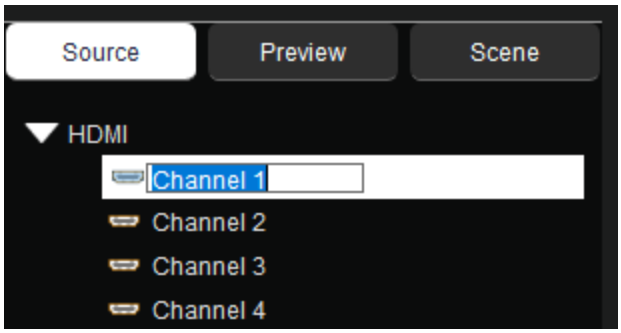
5.3.1 INPUT SOURCE LIST



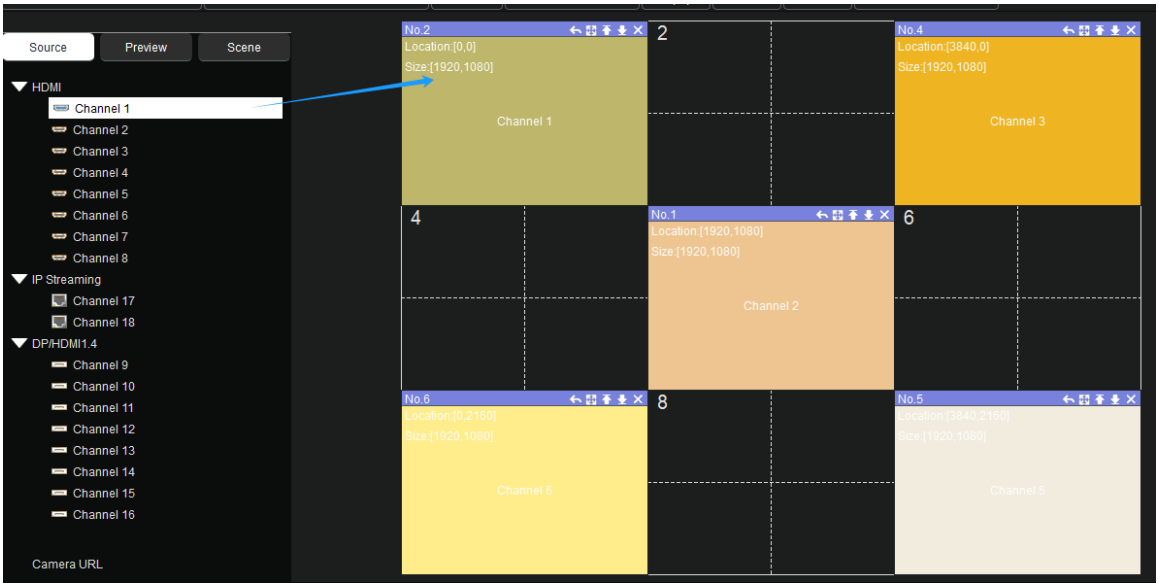
1: Source List: here displays all the input signals. Each channel number corresponds to the input port number on the rear panel of iWall M4.

2: Video Wall Canvas: here displays the videowall physical layouts.

5.3.2 RENAME INPUT SOURCE

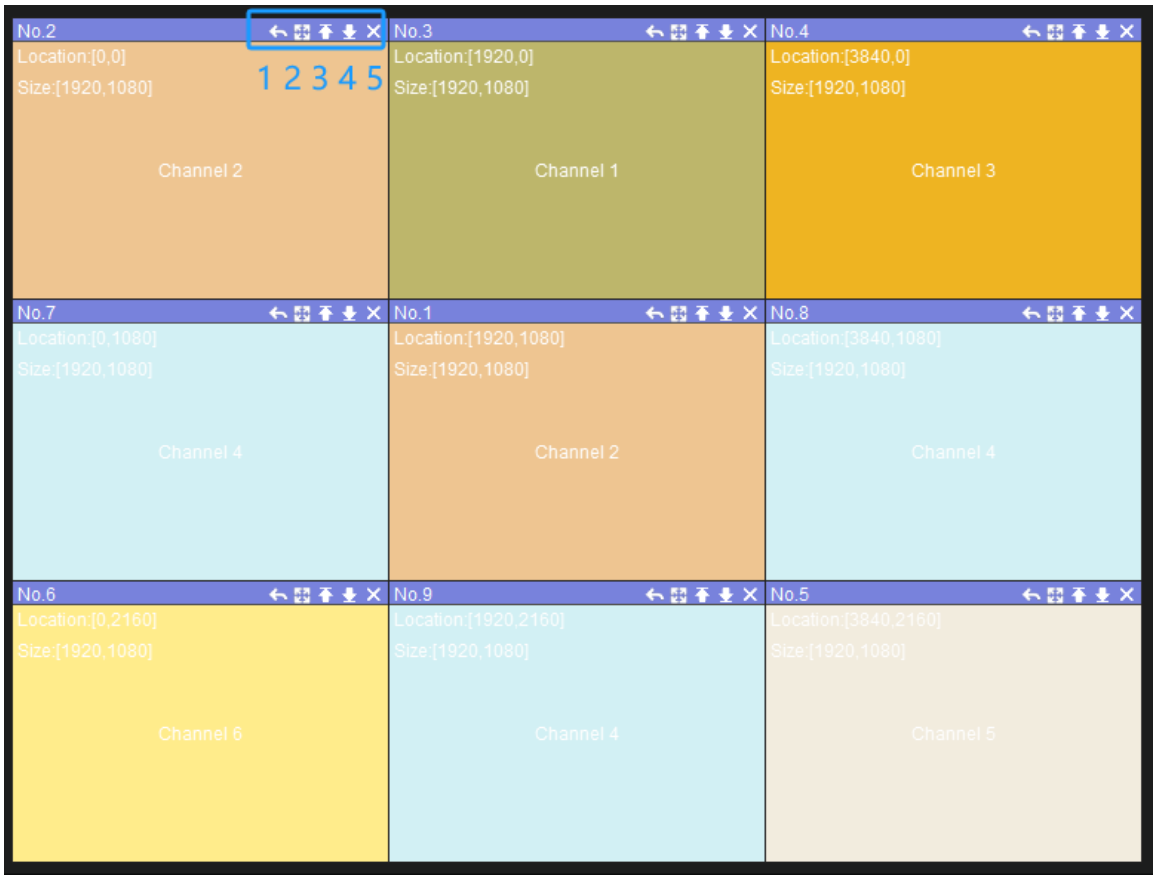
	To change the name of a given channel, double left-click the desired input source channel and enter the name of your choice.

5.3.3 OPEN VIDEO WINDOW



User can drag-and-drop any source to the display grid in the video wall canvas area to open video windows.

5.3.4 VIDEO WINDOWS OPERATION



Any video windows can be drag-n-drop to reposition, resize, zoom in, zoom out, change layers order.

Open a video window

Press the left mouse button to pull out a rectangle, then release the left button to bring up a rectangular window in the control interface.

Adjust video window position

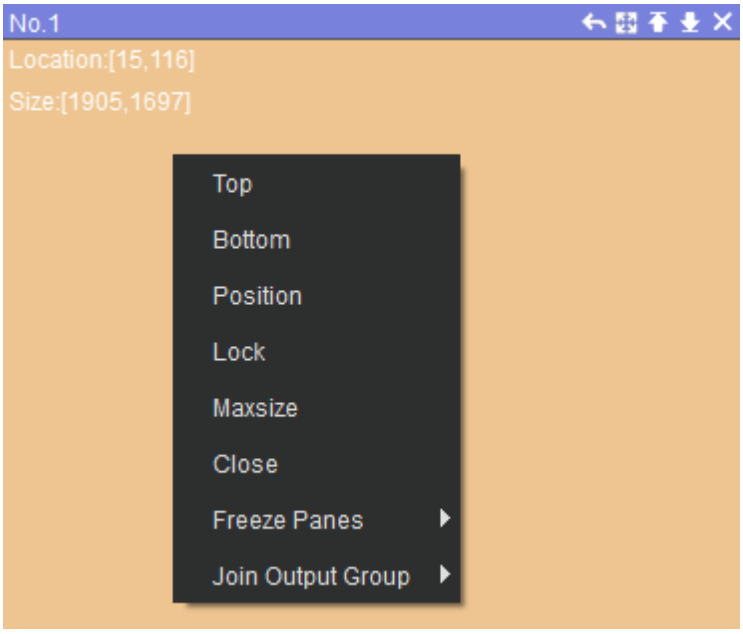
Place the mouse on the window, press and drag the window to the appropriate position and then release to change the window position.

Adjust video window size

Place the mouse in the lower right corner of the window and drag when the mouse changes to a two-way arrow to change the window size.

	**Return:** After selecting the menu, the current window will be fully displayed on the 1st screen of the row and column in which it is currently located.

	Full screen display: Click this menu to make current operation window to be displayed on full video wall. Click this menu again, it will return to previous size.
	Top: Change the video window to the top layer.
	Bottom: Change the video window to the bottom layer
	Close: Close the current video window.



Right click on any video window, there will list more options:

Top: Change the video window to the top layer.

Bottom: Change the video window to the bottom layer

Position: Setup the fine-tune position by input the position parameters. See above.

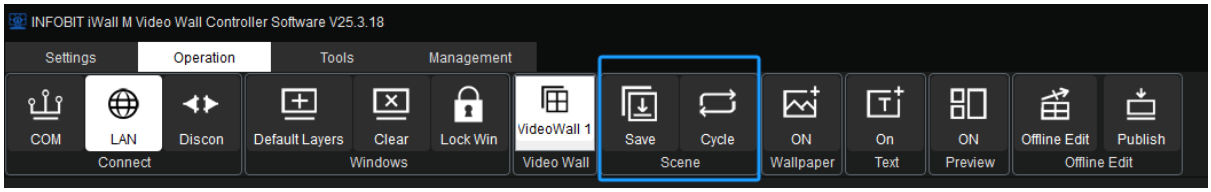
Lock: To lock the window and cannot be edited or moved.

Maxsize: Click this menu to make current operation window to be displayed on full video wall. And then click **Return** to resume.

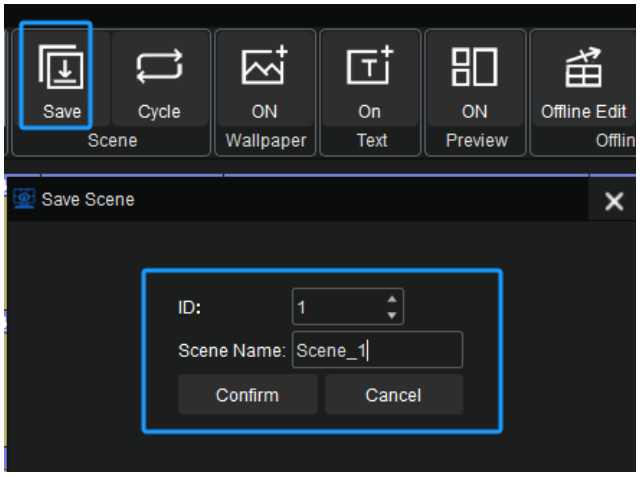
Close: Close the current video window

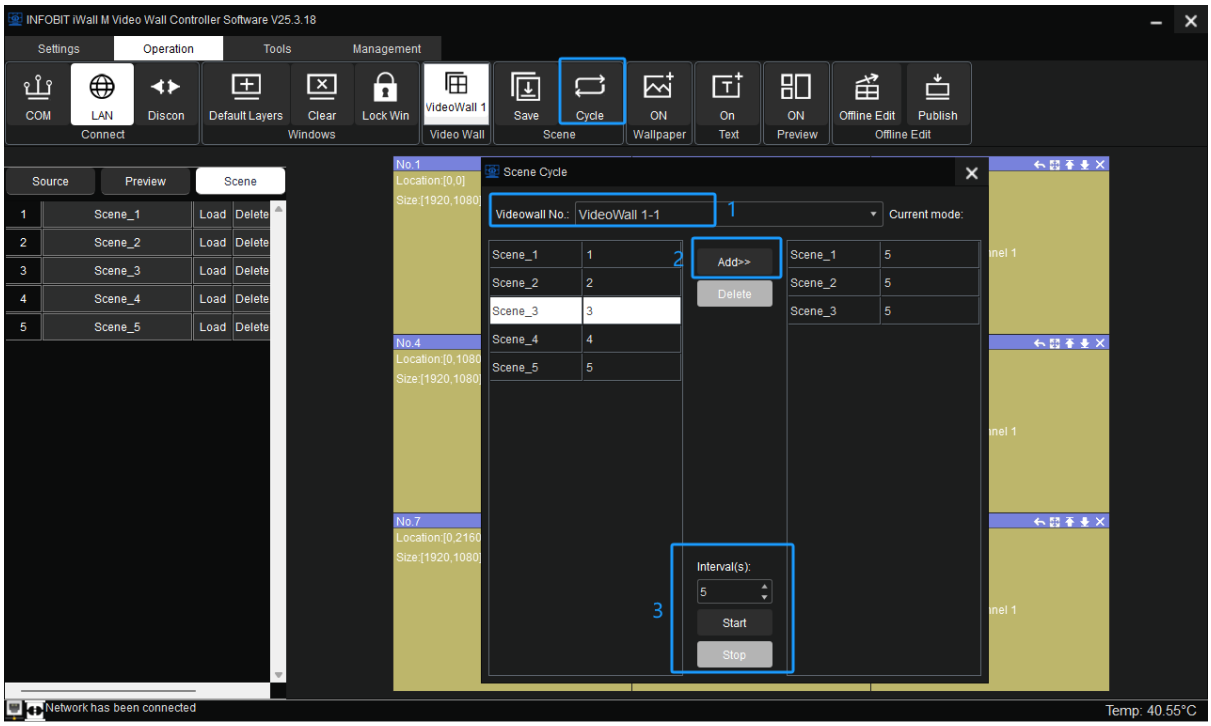
5.4 OPERATION

5.4.1 SCENE



It allows users to create customized display layouts and then recall the scenes.

	**Save:** After creating the desired layout, select **'Operation' - 'Save'**. This will create a scene ID and the scene name can be edited.

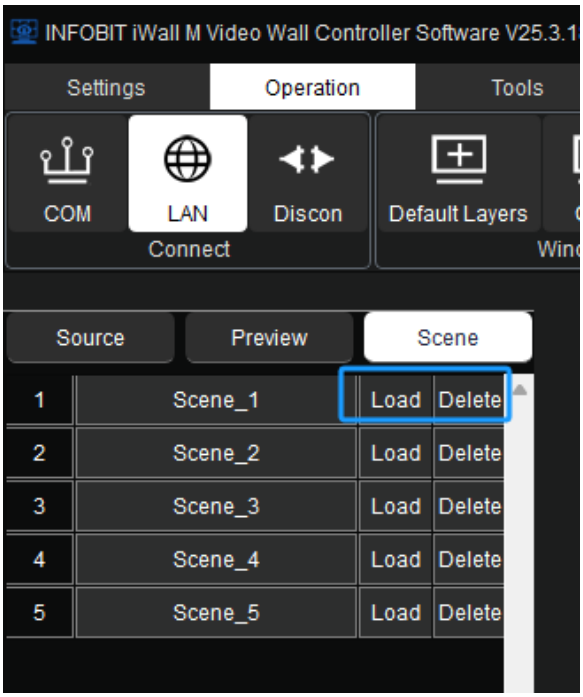


Cycle: Can setup auto-cycle be playing among saved presets (scenes).

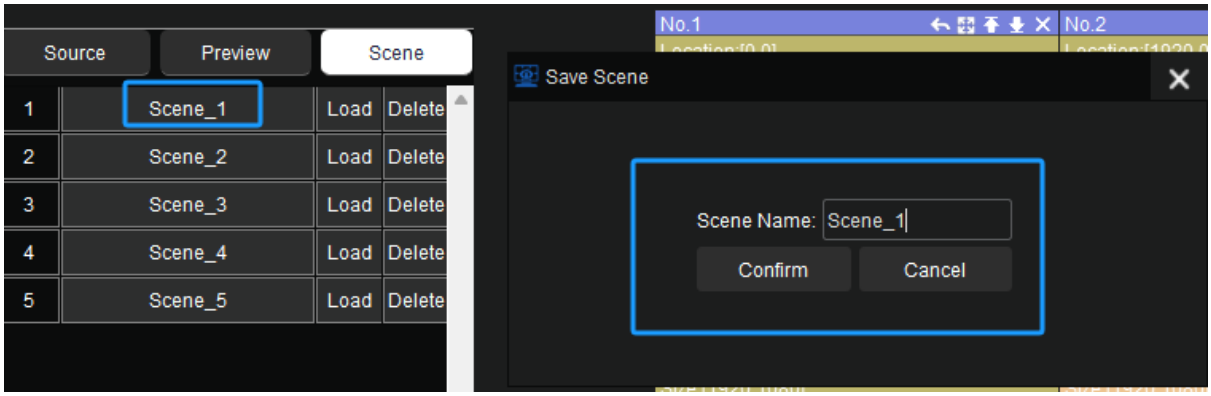
1: Select videowall group if have.

2: Select saved scenes and **Add** to right list.

3: Setup auto-cycle **Intervals** (in seconds), click **Start** to enable or **Stop** to disable.



All saved scenes will be listed under **Scene** menu, user can click **Load** to recall or **Delete** any preset.



Click on each scene list, user can **rename** it.

User also can recall the scene via front touch panel, see details in **4.1 FRONT PANEL.**

6. CENTRAL CONTROL API

6.1 Scene mode recall

6.1.1 Protocols description

<load,mode,groupID,modeIndex>

groupID: fixed at 0

modeIndex: Scene mode serial number,starts from 0

6.1.2 Protocols examples

Recall Scene mode 1

<load,mode,0,0>

Recall Scene mode 2

<load,mode,0,1>

Recall Scene mode 3

<load,mode,0,2>