

## GM9 User Guide

This user guide provides basic instructions for setting up SEADA GM9 Creative Video Wall Controller and how to create eye catching video wall using its management software.



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# Contents

<b>I. SET UP CONNECTION</b> .....	<b>2</b>
<b>II. UI</b> .....	<b>3</b>
<b>III. OPERATION</b> .....	<b>4</b>
1、 LAYOUT.....	4
2、 EDIT.....	5
3、 CONNECTION SETTINGS.....	5
4、 CONFIGURATION.....	7
4.1 <i>Output Resolution Setting</i> .....	7
4.2 <i>System Setup</i> .....	7
5. VIDEO.....	10
6、 PICTURE.....	12
7、 MOBILE SETTINGS.....	15
8、 OTHER COMMANDS.....	17
9、 HELP.....	18
<b>IV. CONTROL ASSISTANT TOOLS</b> .....	<b>19</b>
1、 OSD.....	19
2、 VIDEO CONTROL.....	20
3、 SET UP UART.....	21
<b>V. FIRMWARE UPGRADE</b> .....	<b>22</b>
1、 FPGA FIRMWARE UPGRADE.....	22
2、 CPU FIRMWARE UPGRADE.....	22

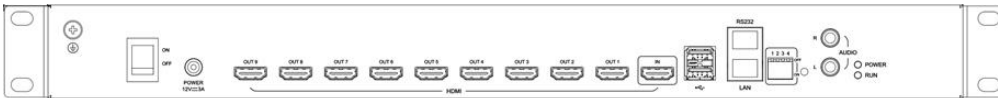
## i. Set up connection

### 1. Set up the static IP address on control PC

The default IP address of GM9 is **192.168.1.136**. The control PC needs to be at the same range of controller to connect to the GM9

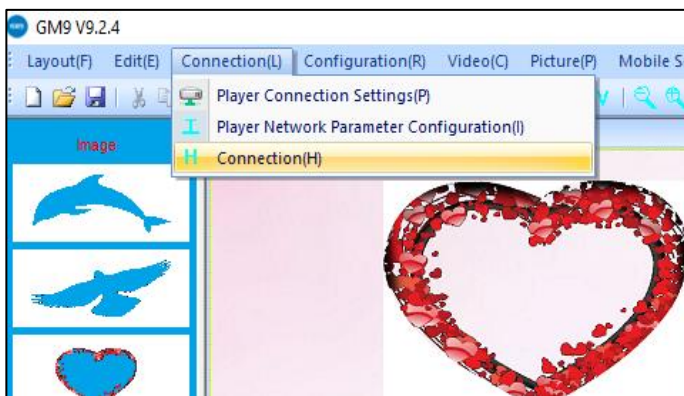
- Open the 'Ethernet Properties' windows on the Control PC
- Highlight the TCP/IPv4 in Networking and click the Properties button to open the TCP/IPv4 Properties window
- Change the 'Obtain an IP address automatically' to 'Use the following IP address to set up a static IP address
  - IP address: any address between **192.168.1.1** and **192.168.1.253** except the address which has been taken by the GM9
  - Subnet mask: **255.255.255.0**, Default Gateway: **192.168.1.254**.

### 2. Connect GM9 to screens and other devices, Ensure the 'LAN' port on GM9 is connected, not the 'RS232' port



### 3. Connect the control PC to powered up GM9 with network port. Ensure the 'LAN' port on GM9 is connected, not the 'RS232' port since both of them use RJ45 connection.

### 4. Open the GM9 software and click 'Player Connection Settings' or 'P' button on toolbar to open the connection dialog box.



In this dialog box, all the GM9 units connecting to this control PC will be shown in the list. Highlight GM9 to be connected and then press '**Connect**' button to connect. A '**connected**' message will be shown once the connection is established.

### Note:

if the GM9 software can not be run on the control PC

Reason	VC++ redistribution not installed at current OS
Solution	Please download and install the 'vcredist_x86.exe' from Microsoft or contact SEADA for support

If a 'Please change your display scale to 100%' message dialog box coming up, please change scale back to 100% in control PC's Display Settings

## ii. UI



GM9 management software provides a GUI in ribbon style for the users and enables users to interactively move, resize, position, and crop any input capture windows. The whole GUI consists of four main parts:

### 1. Toolbar

Users can manage the GM9 units with the commands on the toolbar.

### 2. Video Input List

It lists all the different shapes of the windows for HDMI capture input. Users can drag and drop onto video wall.

### 3. Video Wall Display Area

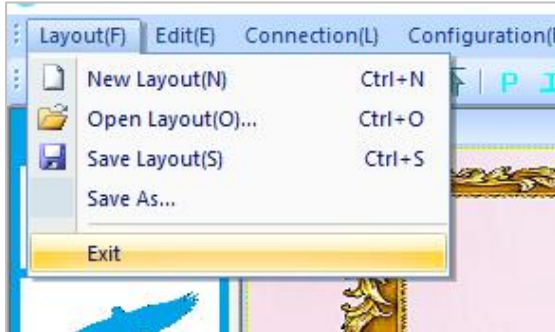
It shows the layout of current windows on video wall and users can manage the inputs windows here via mouse

### 4. GM9 Onboard Layout List

It shows the preset layouts on GM9. Users can load and delete the layouts here on GM9.

### iii. Operation

#### 1、Layout



Users can set up the layouts for the open windows of input video from HDMI capture on the wall. The layouts will be saved onto control PC, not onto GM9 itself and the amount of the layouts can be saved are unlimited here.

##### 1.1 New Layout

Create a new blank layout

##### 1.2 Open Layout

Open an existing layout from the control PC

##### 1.3 Save Layout

Save the changes to the current layout onto control PC

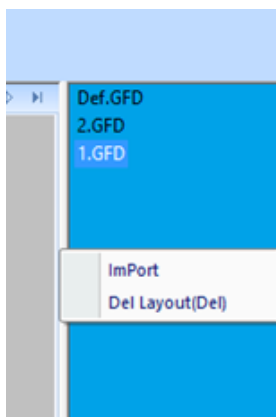
##### 1.4 Save As

Save the current layout to as different layout onto control PC

##### 1.5 Exit

Exit the software

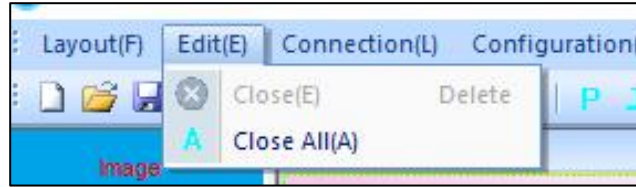
##### 1.6 Import Layouts onto GM9



Users can load the layouts from control PC onto GM9 or delete the layouts from GM9 in this section, therefore the 3<sup>rd</sup> party controller can change the layouts using command lines. Right click on 'GM9 Onboard Layout List' area to open the dropdown menu.

## 2、 Edit

Users can close single or all the opened windows of HDMI captured videos in Video Wall Display Area



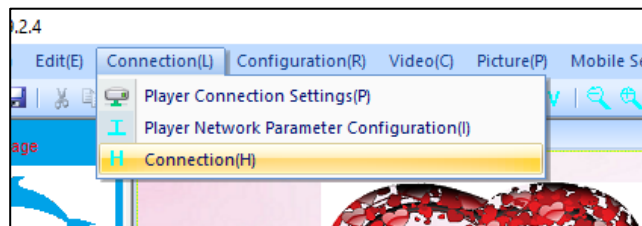
### 2.4 Close

Close the current highlighted on the Video Wall Display Area

### 2.5 Close All

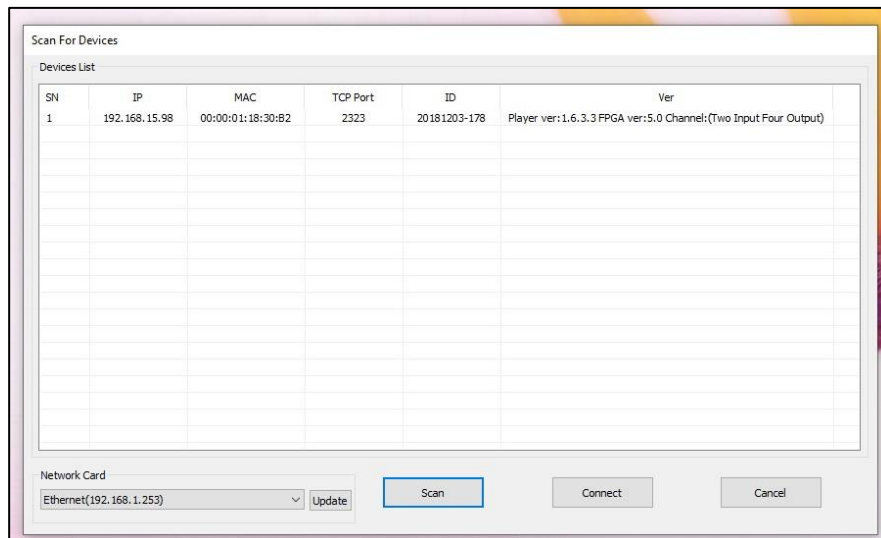
Close all video input windows on the Video Wall Display Area

## 3、 Connection Settings



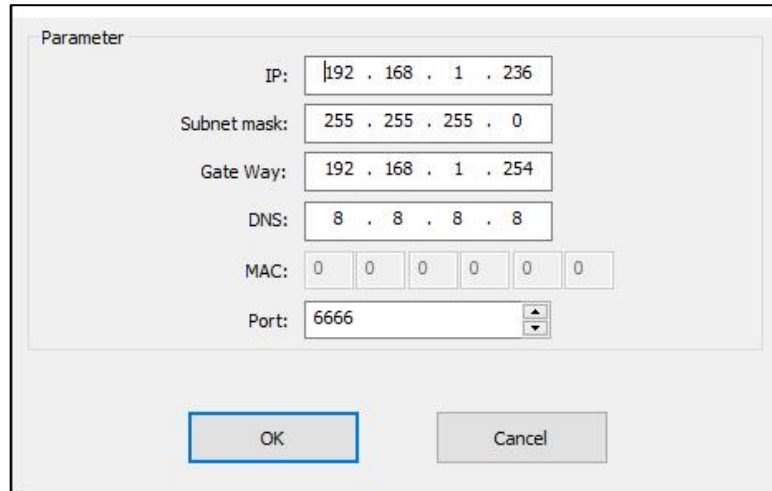
### 3.1 Player Connection Settings

All GM9 units connecting to this control PC will be shown in the list. Highlight GM9 to be connected and then press 'Connect' button to connect. A 'connected' message will be shown once the connection is established.



### 3.2 Player Network Parameter Configuration

Users can change the network settings of the connected GM9 in this section.



The screenshot shows a 'Parameter' dialog box with the following fields:

- IP: 192 . 168 . 1 . 236
- Subnet mask: 255 . 255 . 255 . 0
- Gate Way: 192 . 168 . 1 . 254
- DNS: 8 . 8 . 8 . 8
- MAC: 0 0 0 0 0 0
- Port: 6666

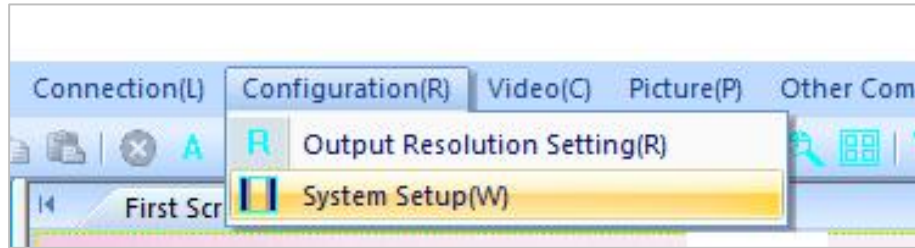
At the bottom of the dialog are two buttons: 'OK' and 'Cancel'.

### 3.3 Connection

Once being pressed, control PC will reconnect to the GM9 automatically.



## 4、 Configuration



### 4.1 Output Resolution Setting

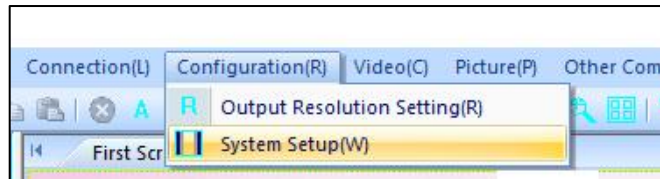
Users can set up the output resolution to match the screens to be used in the video walls.

(1024X768@60Hz 、 1280X720@60Hz 、 1280X768@60Hz 、 1280X800@60Hz 、 1280X1024@60Hz、 1920X1080@60Hz、 1920X1200@60Hz)

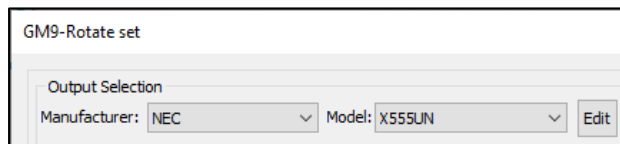
users are also able to customize the output resolution in this section.

### 4.2 System Setup

Users can setup their video wall in the **System Setup** section of the GM9 software. This is accessed from the **Configuration** menu or from the shortcut on the toolbar

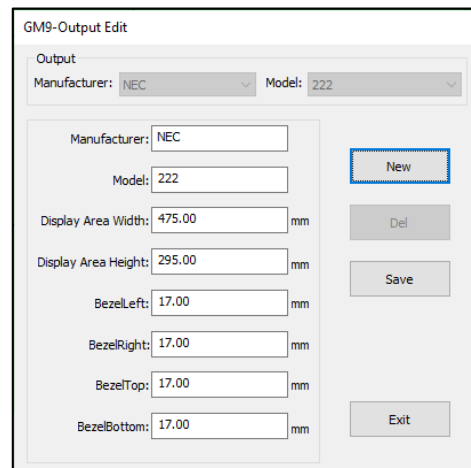


#### 4.2.1. Output Selection



This section allows users to select what type of monitor they have. First select the **Manufacturer** and then select the **Model**. If the monitor you have is not in the list, you can add it manually by clicking on the **Edit** button.

Type in the name of the **Manufacturer** and **Model**. Afterwards you can enter the dimensions of the display area and the bezels of the screen. After you are done you can select Save and then you will find it under the **Manufacturer** and **Model** you have saved it under.





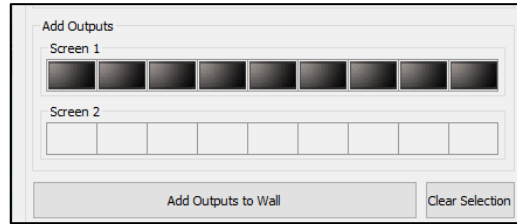
### 4.2.2 Add Outputs

Users can add more screens to your video wall in **Add Outputs** section.

Double click on a screen to add or remove it.

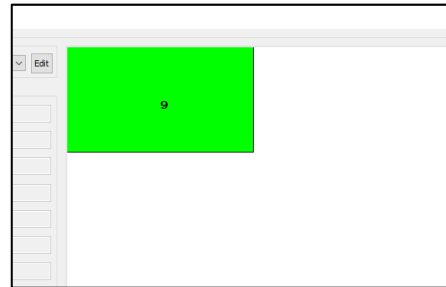
After users finish adding/removing screens, just select **Add Outputs to Wall** and screens will appear on the video wall section. **Clear**

**Selection** will clear all of the added screens from the **Add Outputs** section.



### 4.2.3. Video Wall Area

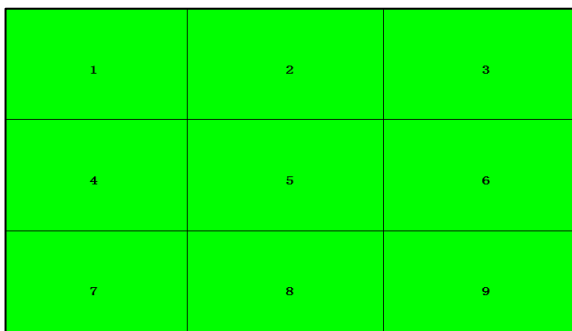
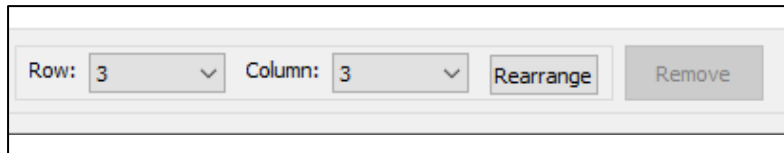
After adding screens onto the Video Wall Area, they will all stack onto each other.



To arrange them as a video wall, users can select the

number of rows and columns from the dropdown menu. After users finished, just click **Rearrange** and the screens should be arranged in the selected formation in the video wall area.

Or users can manually move the screens to form the video wall layouts using mouse or arrow keys

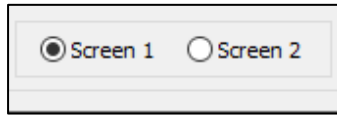


If later users would like to remove a screen, just select the screen and click on **Remove**

To rotate the screens users can either

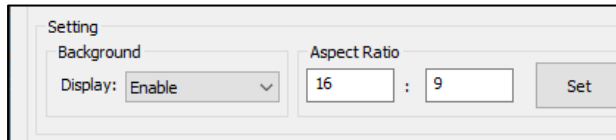
- Select the screen and an angle from the drop down menu and click + for clockwise and – for anticlockwise rotation
- Select the screen and just press “<” and “>” to rotate in increments of 1 degree

#### 4.2.4. Multiple Video Walls



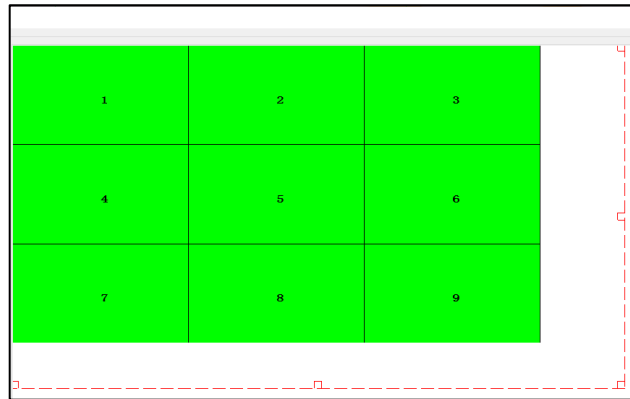
GM9 supports up to two video walls per unit, users will be able to switch between the two video walls from the buttons under the Video Wall Area. Any changes you make are going to be saved to that video wall only.

#### 4.2.5 Aspect Ratio



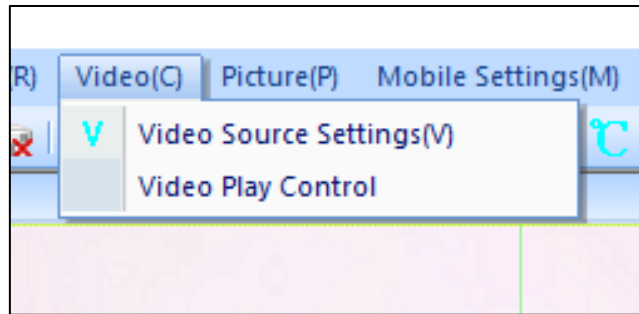
Users can manipulate the aspect ratio of video onto video wall by enabling the **Display** option from the **Background** menu. This will create a dotted outline around the video wall, which users can control by resizing. Just enter the **Aspect Ratio** and click **Set**.

If you want to resize the input just select it until the highlight turns red and drag from the corner. You can move the outline around so that you can see a specific area of your input on video wall.

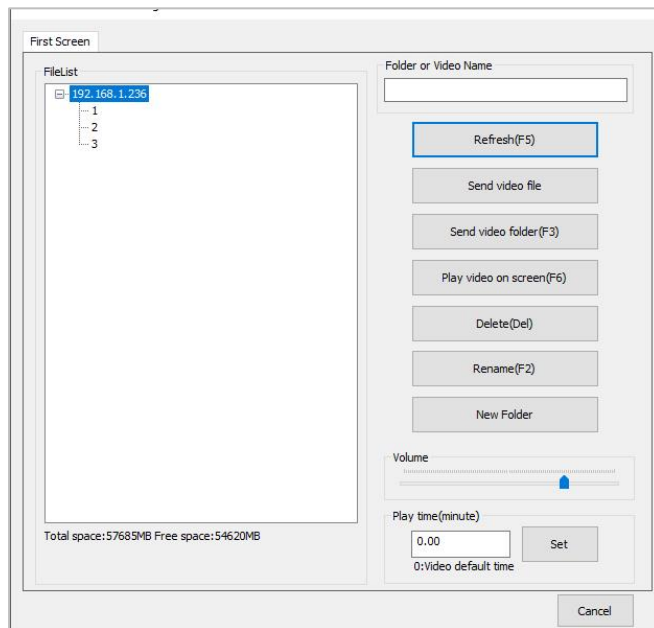


## 5. Video

Users can manage the video source played on built-in media player here.



### 5.1 Video Source Setting



Users can manage the video folder and files on the built-in media player in this section.

#### 1) Refresh

To reload the video folders and files from GM9 onboard storage

#### 2) Send Video File

Users can upload the video sources onto existing folders on GM9

#### 3) Send Video Folder

Users can upload the whole folder of video sources onto GM9

#### 4) Play Video on Screen

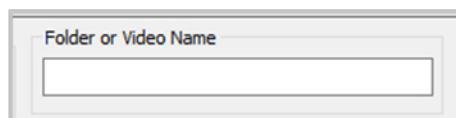
Highlight the video file or folder in the File List and press this button to play the very video or videos in the folder on video wall

#### 5) Delete

Highlight the video file or folder in the File List and press this button to delete this file or folder

#### 6) Rename

Highlight the file or folder in the File List and press this button to rename the video or folder name in the list to the new name users entered in 'Folder or Video Name'



#### 7) New Folder

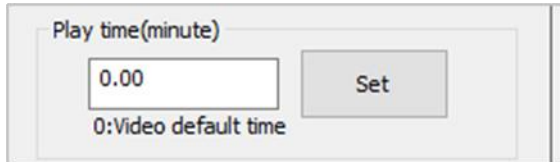
Press this button to create a new folder in the list to the new name users entered in 'Folder or Video Name'

### 8) Volume Control



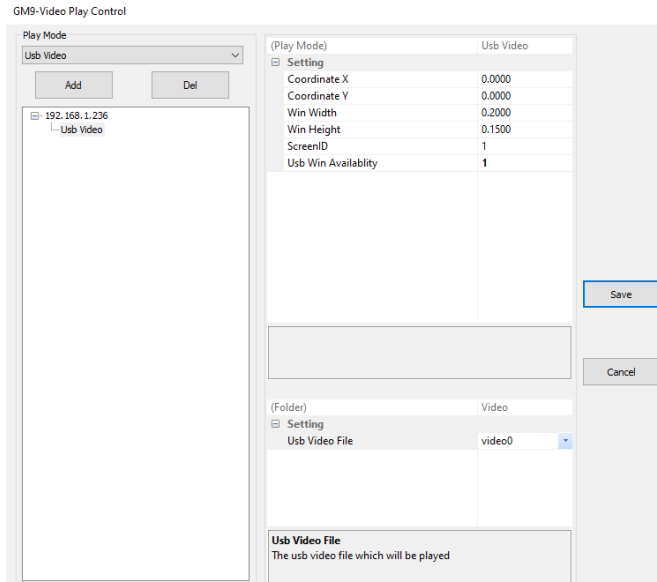
Users can control the volume of the GM9 output audio

### 9) Play Time Control



Users can set up the loop interval time between each video here. GM9 will loop all the videos in the folder at the interval set up by users.

## 5.2 Video Play Control



Users can set up playing the video from a USB memory stick onto video wall any size/anywhere.

videos format must be MP4 and must be stored in subfolder of vide0 to video9 in folder of 's350-usb' on USB stick.

users can decide which folder of the video to play.

e.g. USB:\ s350-usb\vide08

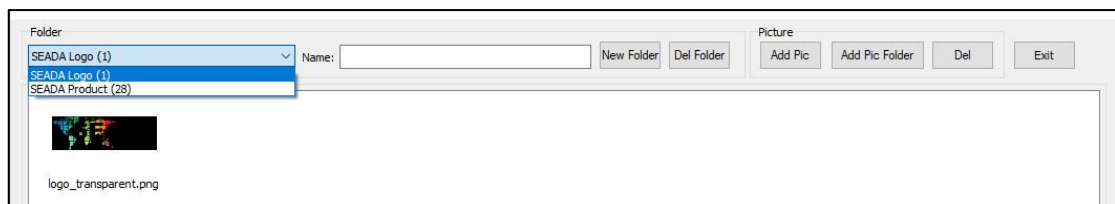
## 6、 Picture

Users can manage the images on GM9 onboard storage, USB and Cloud and set up the display of these images on the video in this section.



### 6.1 Picture Manager

Users can upload the pictures from the PC to GM9 and manage them in this section.



#### 1) Folder

It shows the current picture folders on the onboard storage and how many pictures in each folder. All the pictures will be viewed in icon mode in display area.

#### 2) New Folder

Type in the name and press this button to create a new empty folder

#### 3) Del Folder

Highlight an existing folder and press this button to delete this folder and all the pictures in the folder

#### 4) Add Pic

Add new pictures into the highlighted folder

#### 5) Add Pic Folder

Add the folder with the pictures from the PC to GM9

#### 6) Del

Delete the highlighted pictures in the folder

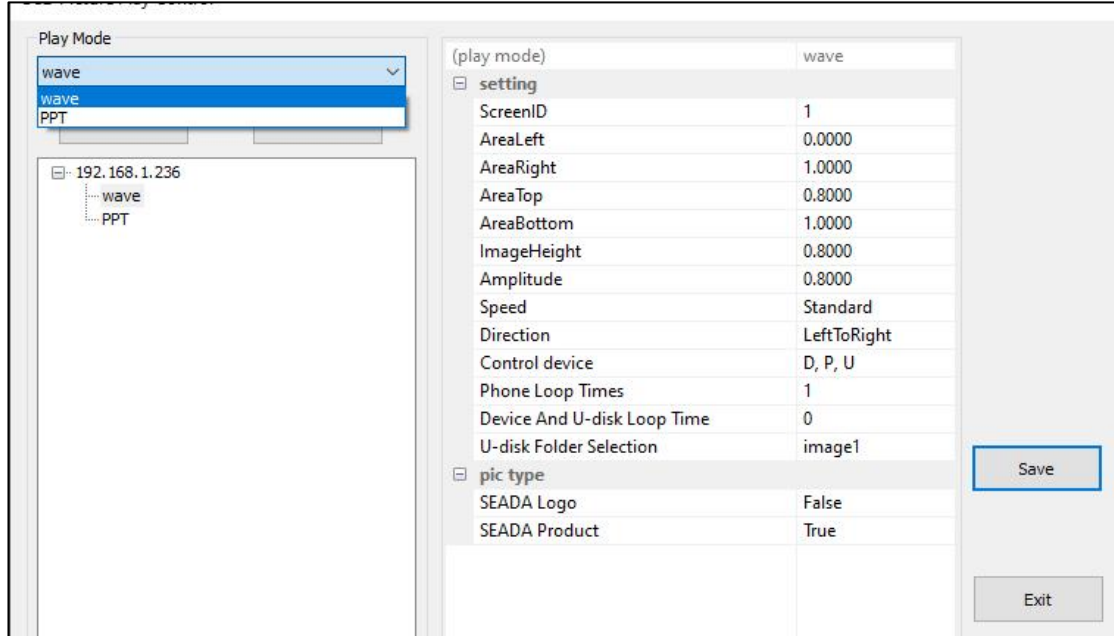
#### 7) Exit

Close this window

## 6.2 Picture Play Control

Users set up the play mode and locations on video wall for the pictures in this section

### 1) Play Mode



GM9 have wave and PPT two modes. Users can add as many modes as they want to the play list.

### 2) Setting

Settings for Wave Mode			
AreaLeft:	Position of left-side of display area	Speed:	Picture moving speed
AreaRight:	Position of right-side of display area	Direction:	Picture moving direction in display area
AreaTop:	Top position of the picture display area	Control Device:	pictures source (Local Disk, Phone or USB stick)
AreaBottom:	Bottom position of the display area	Phone Loop Times:	Picture from smart phone loop times
ImageHeight:	Picture height in picture display area	Device and U-disk Loop Time:	Picture from local disk and USB stick loop times
Amplitude:	Picture wave amplitude	U-disk Folder Selection:	Choose which folder to play from USB stick. Images must be stored in the path like below: 'USB:\s350-usb\image6' subfolder name on USB must be named as image1 to image10

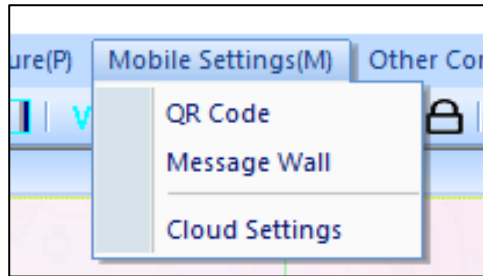
Settings for PPT Mode			
AreaLeft:	Position of left-side of display area	HideTime	Picture PPT off Interval
AreaRight:	Position of right-side of display area	Control Device:	Pictures source (Local Disk, Phone or USB stick)
AreaTop:	Top position of the picture display area	Phone Loop Times:	Picture from smart phone loop times
AreaBottom:	Bottom position of the picture display area	Device and U-disk Loop Time:	Picture from local disk and USB stick loop times
ShowTime:	Picture PPT on interval	U-disk Folder Selection:	Choose which folder to play from USB stick. Images must be stored in the path like below:  'USB:\ s350-usb\image6' subfolder name on USB must be named as image1 to image10

### 3) Picture Type

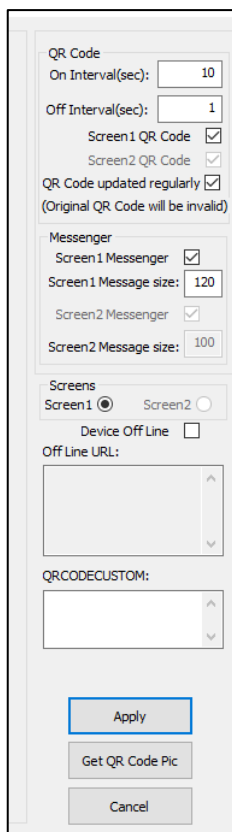
To choose the pictures of which folder will be played in this mode. 'True' means the pictures in this folder will be played. 'False' means they will not.



## 7、 Mobile Settings



### 7.1 QR Code



To set up the QR code which enables the features of sending images, message, greetings, and emoji from smart phone via Cloud and control the GM9 using phone with internet. This feature is option.

Please press **'Apply'** to enable the changes.

#### 1) QR Code

- i. On Interval: QR code display on screen period
- ii. Off Interval: QR code off screen period
- iii. Screen1 QR Code: Enable the QR code on video wall 1
- iv. Screen 2 QR Code: Enable the QR code on video wall 2
- v. QR Code Updated Regularly: QR code will change every 24 hours or when unit being power off/on

#### 2) Messenger

It enables/disables the message and greeting ability on Cloud management.

#### 3) Screens

Choose which video wall the QR is on

#### 4) Device off line

In this mode, users can control the GM9 at local LAN via smart phone which needs to be in the same network with the GM9.

#### 5) Off line URL

it shows the URL of off line barcode, users can keep it on the phone for quick access without scan the barcode

#### 6) QR Code custom

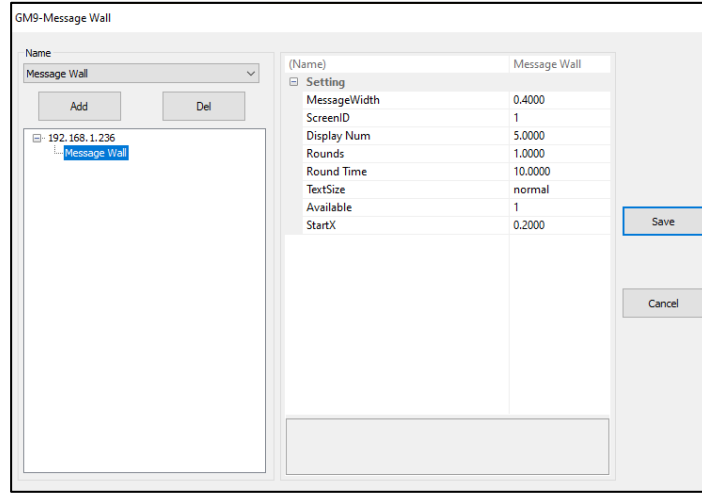
users are able to customise the QR code by their own standard.

#### 7) Get QR Code Pic

To get the QR code picture. If users want to keep the Cloud management feature from the public, they can disable the QR code shown on video wall and keep the QR code picture by themselves.

## 7.2 Message Wall

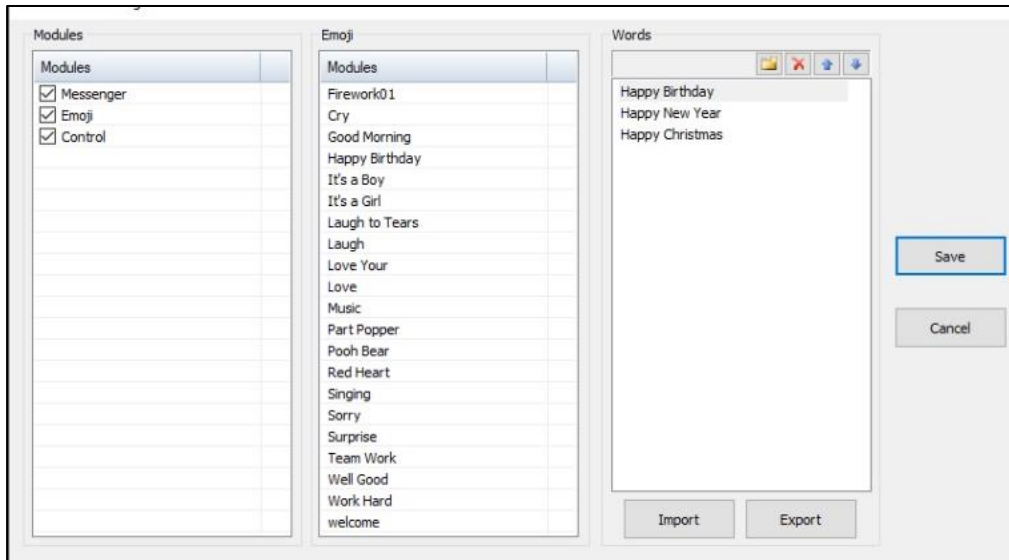
Users can set up parameters of Message Wall in section for Cloud applications. once enabled, users can send message onto video wall scrolling from bottom to top via smart phone.



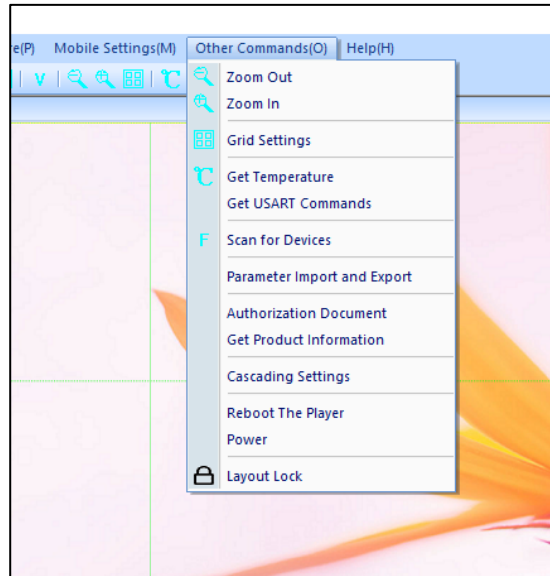
Settings for Message Wall			
MessageWidth	Message width as wall width	Round Time	Interval between each movement
ScreenID	Video Wall Number	TestSize	Message size
Display Num	No. of messages at the same time	Available	Enable/disable the message wall
Rounds	No. of looping	StartX	Start position on wall

## 7.3 Cloud Settings

Users can enable or disable the Messenger, Emoji and Control feature from the Cloud management and manage the greetings on the cloud.



## 8、 Other Commands



### 8.1 Zoom Out

Zoom out the Video Wall Display Area in software.

### 8.2 Zoom In

Zoom in the Video Wall Display Area in software.

### 8.3 Grid Settings

Set up the number of grids in Video Wall Display Area in software UI

### 8.4 Get Temperature

Check CPU temperature.

### 8.5 Get USART Commands

Display the RS232 commands sent by 3<sup>rd</sup> controller to GM9 via serial port live.

### 8.6 Scan for Devices

Scan and find all the GM9 devices on the same network

### 8.7 Parameter Import and Export

Import the previous saved parameters to GM9 or export the current GM9 parameters out for future reference

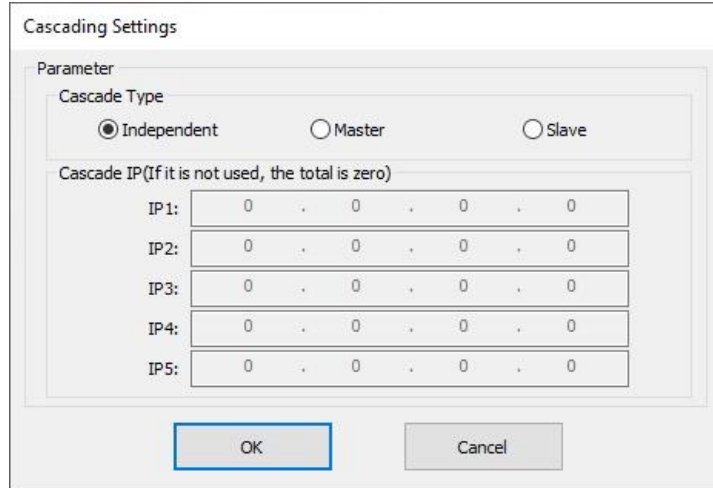
### 8.8 Authorization Document

Load the license for the Video Wall mode if needed.

### 8.9 Get Product Information

It shows the current Firmware version

### 8.10 Cascading Settings



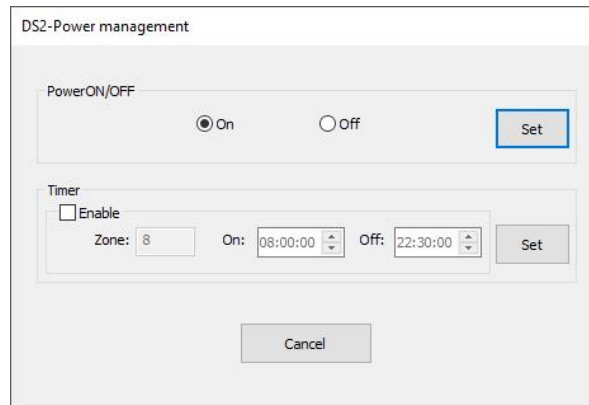
- 1) Independent: unit is used as stand alone
- 2) Master: unit is set up as master unit in the system
- 3) Slave: unit is set up as slave unit in the system to follow master unit

### 8.11 Reboot the Player

User can remotely reboot the GM9 unit in this section.

### 8.12 Power

User can remotely power on/off directly or schedule a power on/off.



### 8.13 Layout Lock

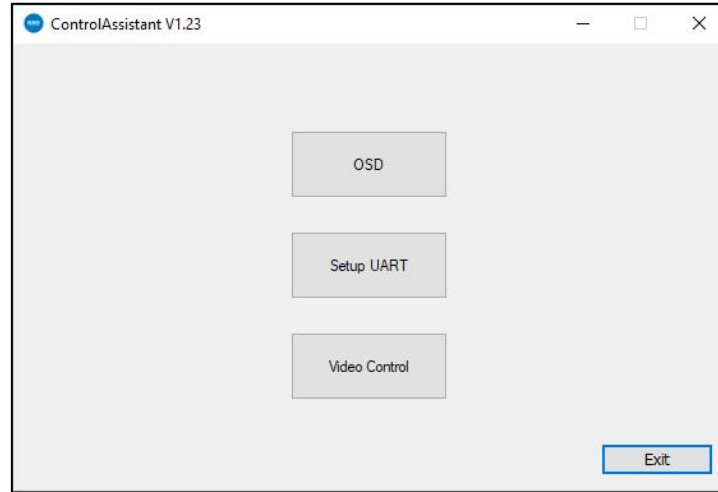
It will lock the current layout away from any movement.

## 9、 Help

Shows the software version detail.

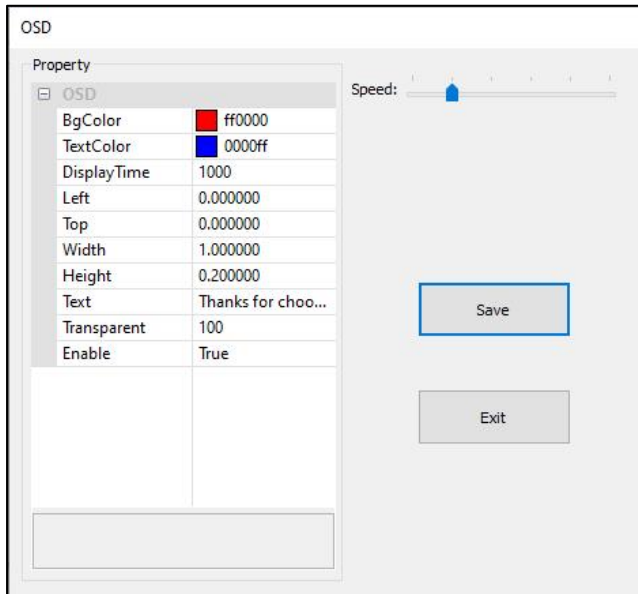
## iv. Control Assistant Tools

Run the control assistant software  in the sub folder of 'tools' in software folder. Users will be able to set up Scrolling Text, Video Play Control and Serial Port Settings.



### 1、 OSD

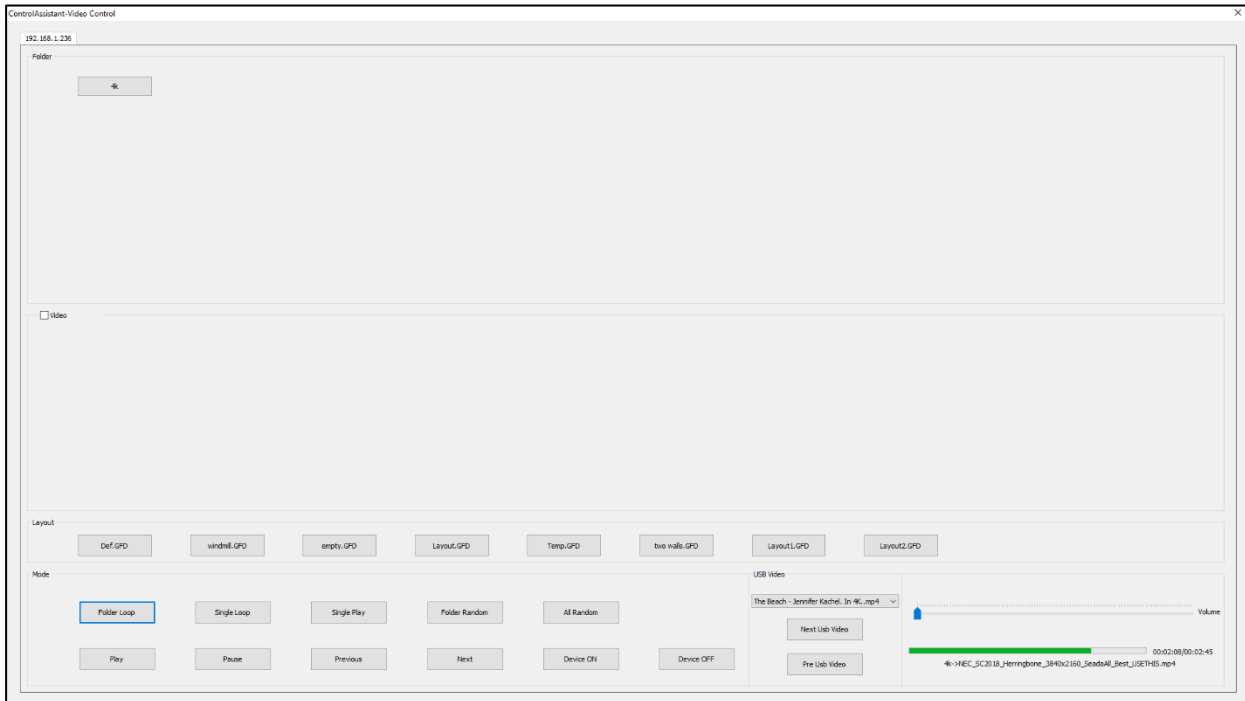
Users can set up the scrolling text in this section.



BgColor:	Background colour
TextColor:	Text font colour
DisplayTime:	Scrolling text display period
Left:	Left position of display area
Top:	Top position of display area
Width:	Display area width
Height	Text height
Text	Text, up to 140 characters
Transparent	Background transparency
Enable	Ture is enabled, False is disabled.
Speed	When speed is Zero, scrolling text will stay still at the middle of video wall

## 2、 Video Control

Users can manage the videos on GM9 in this section.



### 2.1 Folder

Click on folder, system will play videos in that folder

### 2.2 Video

Tick the 'Video' and click on folder, 'video' area will show all the videos in this folder and users can choose which video to player.

### 2.3 Layout

Users can change the preset layouts by clicking the preset layout button

### 2.4 Mode

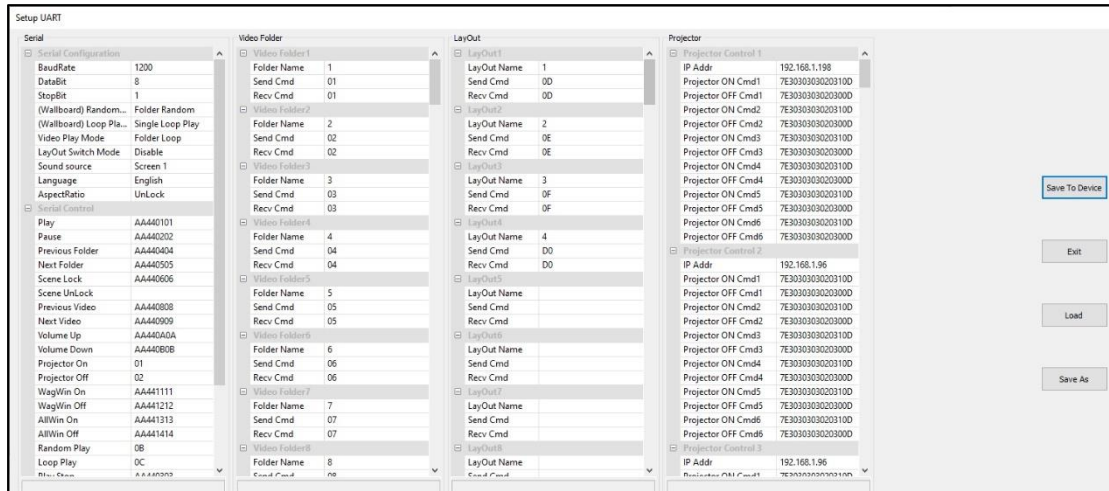
Users can manage 'Playing the Video' and also turn unit off/on in this section

### 2.5 USB Video

Users can manage the videos on USB memory stick in this section

### 3、 Set up UART

Users can set up the serial port parameters in this section



#### 3.1 Serial

These are the serial port parameters and command lines for controlling this unit. Customers can customise the settings, but not recommended.

#### 3.2 Video Folder

If users want to use 3<sup>rd</sup> party controller to control videos of which folder to be played, video folder parameter needs to be setup.

- The folders name here needs to be identical to the video folder name in ‘Video Source Setting’ (see chapter 5.1)
- system will automatically read the folder name in ‘Video Source Setting’ and display here
- users can customise the command lines in ‘Send Cmd’ to be used to recall the video folder via RS232 port

#### 3.3 Layout

If users want to use 3<sup>rd</sup> party controller to change the preset layouts, layout parameter needs to be setup.

- The layout name here needs to be identical to the preset layout name in ‘GM9 Onboard Layout List’ (see chapter ‘III UI-No.4)
- system will automatically read the layout name in ‘Video Source Setting’ and display here
- users can customise the command lines in ‘Send Cmd’ to be used to recall the video layout via RS232 port

#### 3.3 Projector

Users can set up command lines here to control projectors, screens, and other devices which devices which support remote power on/off via RS232.



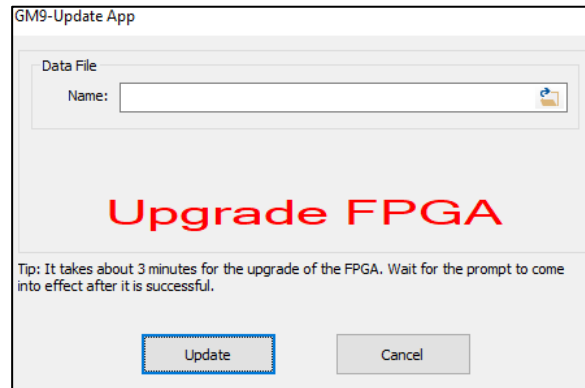
## v. Firmware upgrade

### 1、 FPGA firmware upgrade

Step 1: Get the right version of firmware (.dat)

Step 2: Connect the device with software

Step 3: Press F11 +F9 (Laptop might need Fn button) to open the dialog windows as below



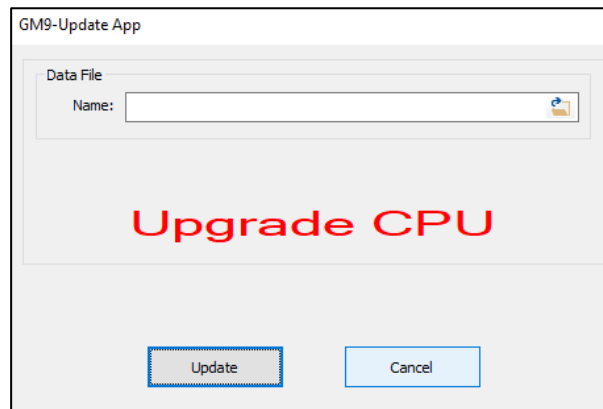
Step 4: load the firmware and press the 'Update' button to upgrade the firmware

### 2、 CPU firmware upgrade

Step 1: Get the right version of firmware (.bin)

Step 2: Connect the device with software

Step 3: Press F11 +F12 (Laptop might need Fn button) to open the dialog windows as below



Step 4: load the firmware and press the 'Update' button to upgrade the firmware

Note: users can check the versions of the firmware in 'Player Connection Settings' or 'Scan for Devices' in Other commands

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