

4K Video Mosaic Box

User ManualV1.1

⚠ Before using this video mosaic box, please read this manual carefully and preserved for reference in the future.

MAGNIMAGE

MIG-F4

Statements

Without the written permission, any unit or individual could not copy, reproduction or translate the book or part of it. Also could not transmit it in any form or any way (electronic, mechanical, photocopying, record or other way) for any business and profitable purpose.

The product specifications and information mentioned in this manual is just for reference, will not give prior notice if there is any updated. Unless there is a special agreement, it is just used as guidelines. All the statements or information in this manual shall not constitute any form of guarantee

Directory

Briefs	1
About Software	1
Features.....	1
Safety Instructions.....	2
Function Introduction	3
Brief.....	3
Technical Specifications.....	4
MIG-F4 Front panel introduction	5
Controlling Software operation introduction	7
Install and unload.....	7
Running Environment.....	7
Installing processing	8
Unload the software	9
Open the software	11
Connection indication window	12
Main program window.....	13
Output Setting.....	19
Software usage.....	21
Preparation	21
Specific application	22
Warranty.....	27
The whole unit warranty	27
The warranty provisions.....	27

Briefs

Thanks for your purchasing our MIG-F4 video mosaic box. Do hope you can enjoy the experience of the product performance. The design of the video mosaic box conforms to international and industry standards. But if with improper operation, there will be a personal injury and property damage. In order to avoid the danger, please obey the relevant instructions when you install and operate the product.

About Software

Do not change, decompile, disassemble, decrypt or reverse engineer the software installed in the product, these acts are illegal.

Features

- 4 Screens Splicing in 1 box:
- 2 DP inputs,2 HDMI inputs.
- Single input supports 4K×2K/60Hz input, 8K×1K/60Hz input.
- EDID management.
- Output support DVI×4 or HDMI×4
- Supports customized output resolution
- A single unit uploads 9,000,000 pixels
- Supports input backup function
- Multiple cascade synchronization
- Presets saving&loading function
- Image crop,layer zoom function
- Edge blending function
- Computer host control, Android&apple app wireless control
- WIFI module attached

Safety Instructions

- Please use the correct power supply according that the power input voltage for this product range is 100 ~ 240V AC, 50/60Hz.
- When you need connect or pull out any signal or bound guideline. Please confirm that all the power supply cords have been pulled out ahead.
- When you need to add hardware device for the video mosaic box, make sure all of the signals and power cables have been pulled out ahead.
- Before you operate any hardware, please turn off the video mosaic box's power, and to set you on the electrostatic by touching the ground surfaces.
- Please use the processor in clean, dry and ventilated environment, not use it in the high temperature, humidity environment.
- The product is electronic product; please stay away from the fire, water and of which is inflammable and blast, dangerous.
- This product is with high pressure components, please don't open the case or maintain it by your own.
- As there is exceptional condition with smoke, ill-smelling, please turn off the switch at once and contact with the dealers.

Function Introduction

Brief

4K video mosaic box is a mini video equipment that released by magnimage company recently, it has greater uploading capacity and with the characteristics of single machine 4 screens mosaic, smart control and auto backup; it supports multiple DP and HDMI input ports, single input supports maximum 4K×2K/60Hz , DP supports 8K×1k/60Hz input resolution, and downward compatible with common resolution; 4K mosaic video box with its fashionable design and convenient usage is suitable for all kinds of screen applications.

Model Description:

MIG-F4D: 4 DVI outputs

MIG-F4H: 4 HDMI outputs

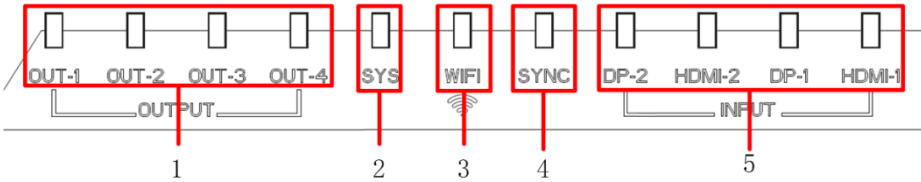
Technical Specifications

Input Indication		
Port	Quantity	Resolution
HD MI	2	HDMI 2.0 standard 3840×2160/60Hz and EDID management
DP	2	DP 1.2 standard 3840×2160/60Hz, 7680×1080/60Hz input and EDID management

Output Indication		
Port	Quantity	Resolution (each DVI output)
DVI or HDMI	4	1024×768、1366×768、1440×900、1280×1024、1680×1050、1600×1200、2560×816、1440×1440; 50Hz and 60Hz optional Customized output resolution (Bandwidth optimized): The width resolution is up to 3840 The height resolution is up to 2160

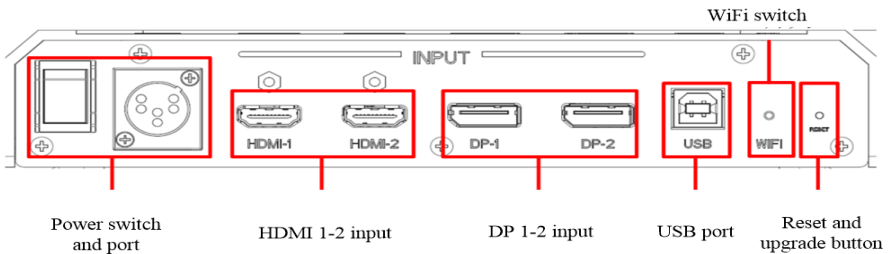
Whole Unit Specifications	
Input Power Supply	100-240V AC~50/60Hz
Working	0-45°C
Working humidity	10% -90%

MIG-F4 Front panel introduction

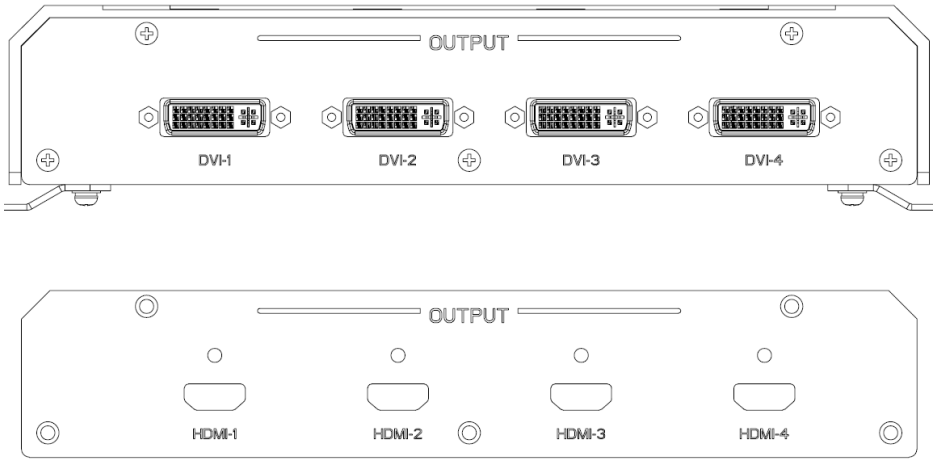


1. output connection indicator light:
Indicator light is green when connection valid, red when output not available.
2. working conditions indicator light:
Green light flashes when system is working.
3. WIFI indicator light:
Green light when WIFI working conditions OK.
4. Output synchronization status indicator light:
Synchronization status indicator light.
5. Input status indicator light:
selected input light is green while the lights not selected are off.

MIG-F4 right side



MIG-F4 left side



The outputs of MIG-F4 can be 4 DVI or 4 HDMI; two types of outputs are optional.

Controlling Software operation introduction

Install and unload

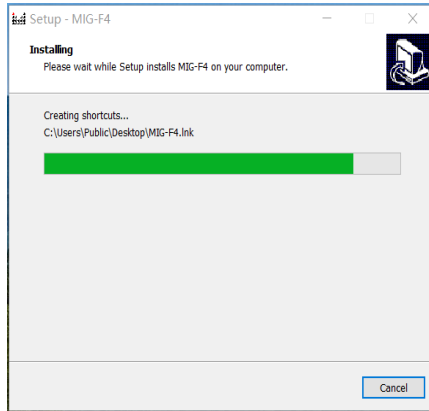
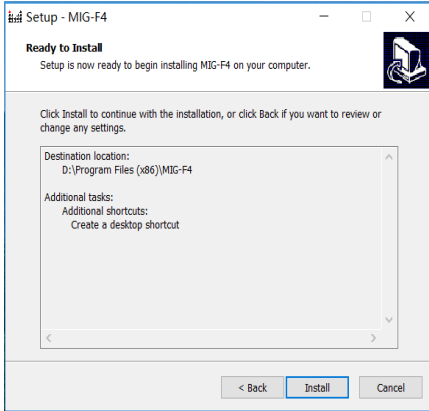
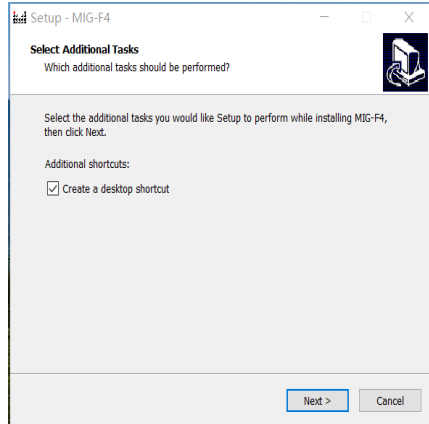
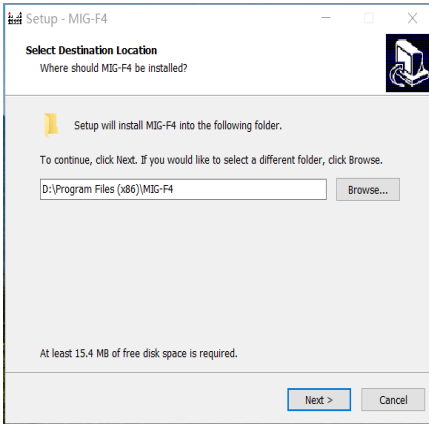
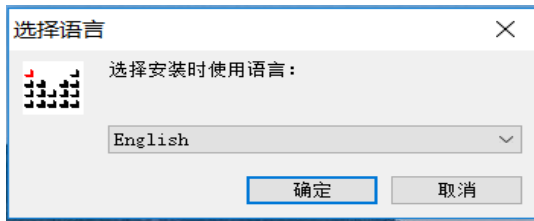
MIG-F4 computer control software(called software as following), is a professional control software mainly developed for the F4 mosaic box screen display controllers. The software interface is intuitive concise, easily handled and almost all the functions of the controller is achieved by the software.

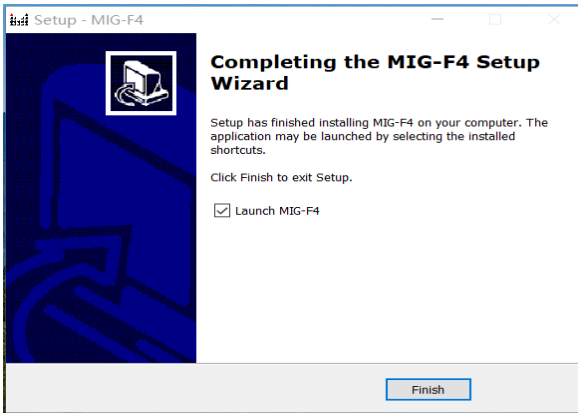
Running Environment

- CPU frequency \geq 1.6GHz
- RAM \geq 1G
- Video memory \geq 512M
- Windows XP \ Windows 7 (32 Bit or 64 Bite) \ Windows 8 (32 Bit or 64 Bite)
- Minimum Display Resolution: 1024×768

Open the device attached USB disk, find the file “MIG_F4-SetupVX.X.X.msi” , double click this file, to initiate the installing program in the computer which has not yet installed the software, in the computer that has already installed the software, the computer will initiate repairing or unloading program.

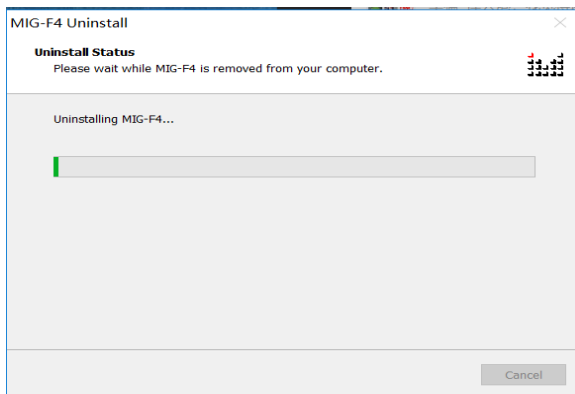
Installing processing

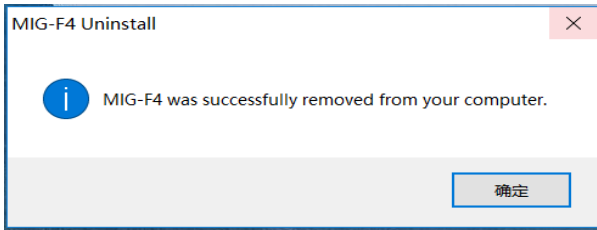




- Double-click program to start install,click "Next" to continue.
- Select program installation location, and setup the program user.
- Confirm all the setting, and click "Next" to go on.
- Installing process starting
- Ask for uses-permission, please select "Yes" .
- When they finish, please click the "Close" . And you got it.

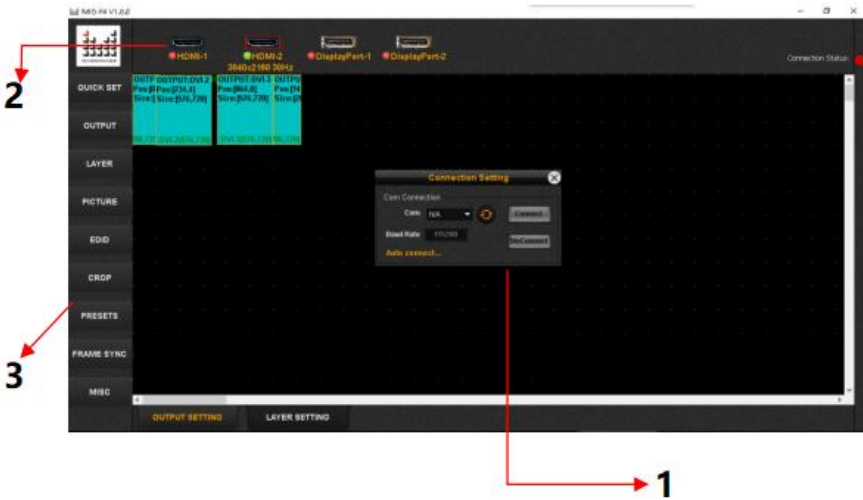
Unload the software





- Double-click the installer, start the uninstalling with the software, click "Next" to go on.
- Finish and click "Close" .

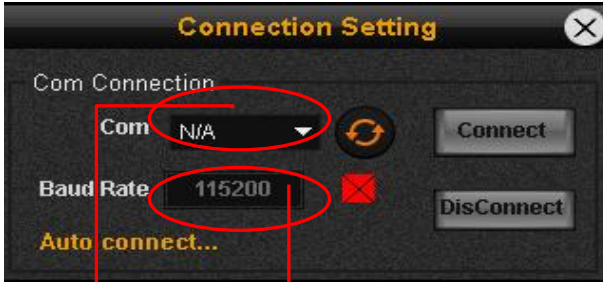
Open the software



After opened the software, you will see software interface as the above

- 1、 connection prompt window
- 2、 input status display area
- 3、 function area

Connection indication window



Select the corresponding connection serial port, normally COM3, refresh rate selection

Baud Rate display, normally select the default value

After the corresponding connection serial port selected, click "connect" to proceed connection, click "disconnect" to proceed disconnection.

Main program window

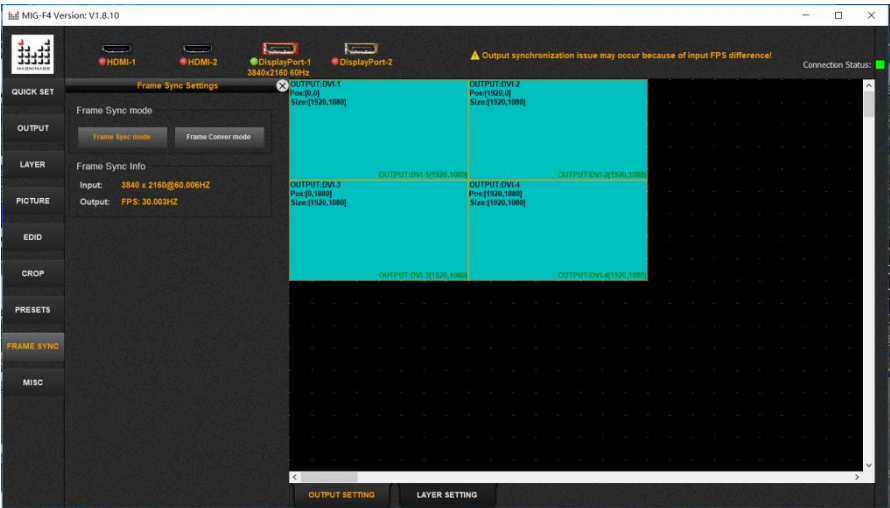
Function menu



after the software connected with the device successfully, the top right indicator light in the software will be green, and will become red if not successfully connected.

- 1、 Find the left bottom function setting menu in the MISC after connection confirmed.
- 2、 check device firmware version
- 3、 the Upgrade menu can upgrade FPGA/MCU/HDMIRX of the device
- 4、 factory reset
- 5、 Get data from machine, which is to get back the device data after software reconnected with the device successfully.
- 6、 Wifi Configure, can set WIFI IP,name and WIFI password
- 7、 Input signal backup switch, the device can detect the signal automatically and do hot backup after turning on.

Frame Synchronization menu



Two modes in the frame synchronization menu

1、Frame Synchronization mode :

In this mode input and output refresh rate should be the same, the output will be synchronous and at the same time indicating current input and output refresh rate

2、Frame conversion mode :

In this mode the output can be synchronous as well but can only indicate the input signal information, the output information is to be set in the output setting menu.

Preset setting menu

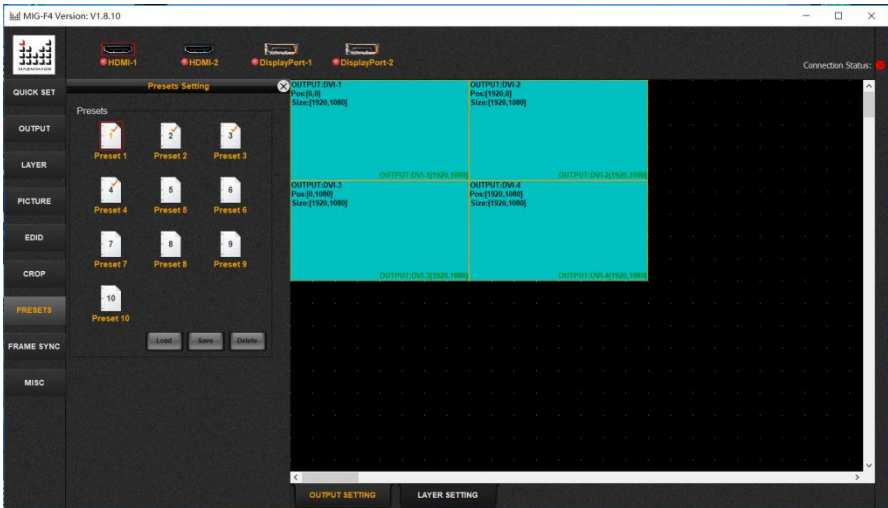


Image crop menu

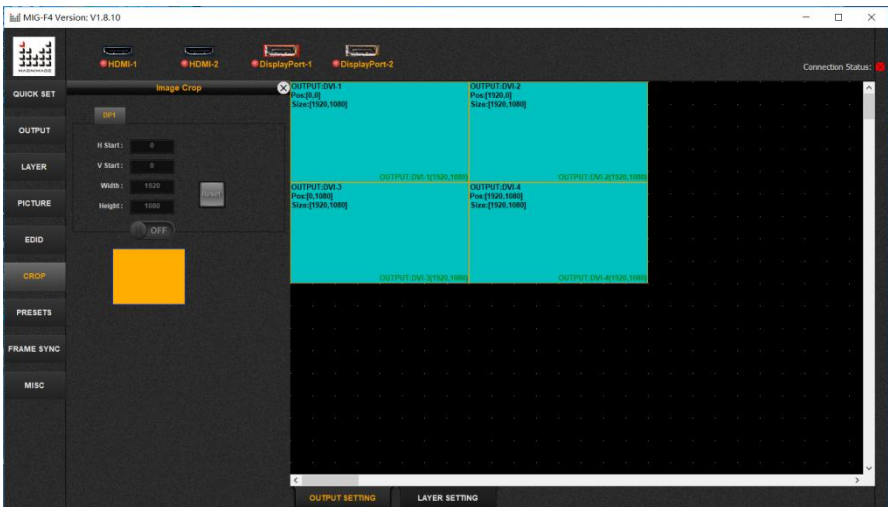
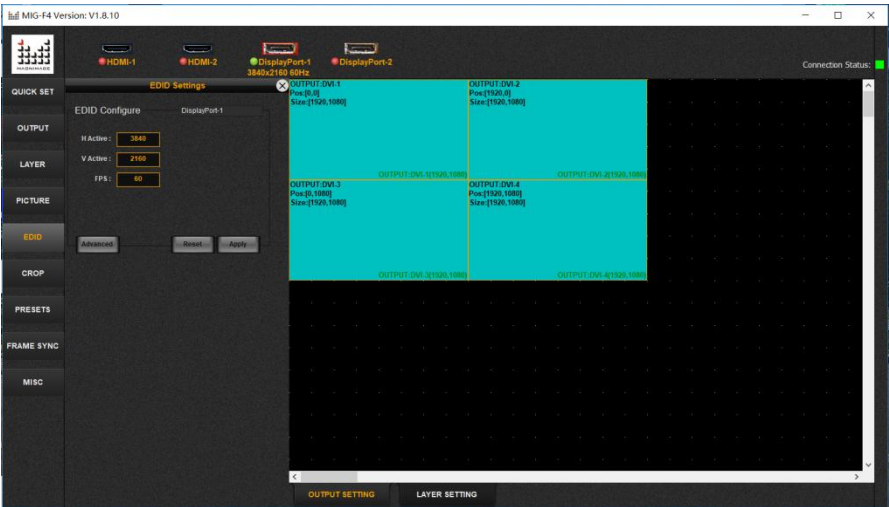


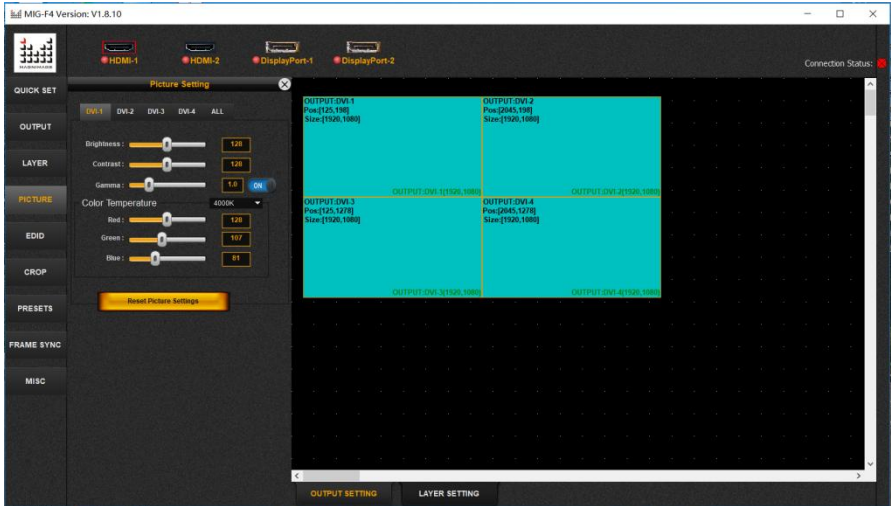
Image crop can crop the edge of signal source, enter this menu and switch on the function, set the height width and H pos V pos value to crop the selected input signal, there will be the part of the area of the signal after cropped.

EDID menu



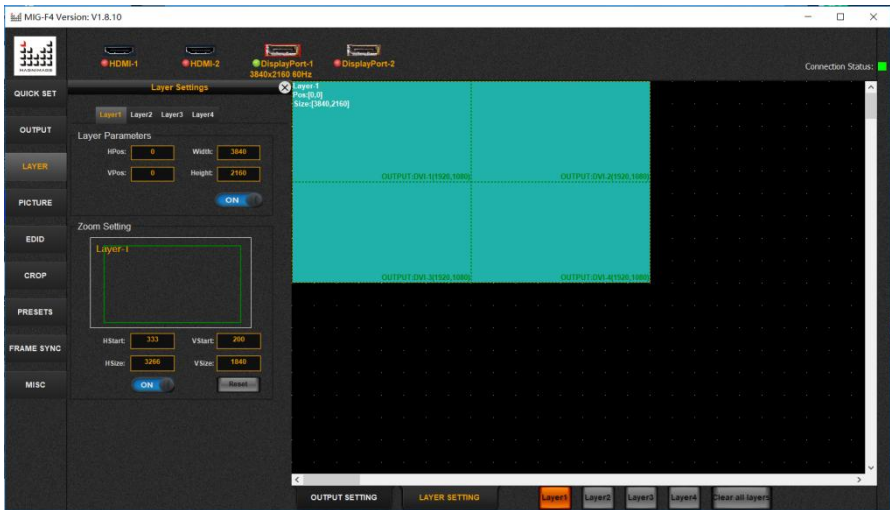
EDID function can lock the input resolution of the current select input signal, can apply the input width, height and refresh rate in current interface, or can go to the Advance to precede more specific value setting, and also can reset the parameters. All the four input ports of F4 to be reset are 4K input port, it can maximum support 3840×2160@60Hz, and is compatible downwards.

Picture setting menu



Picture setting can set not only brightness, contrast, gamma and color temperature of each output separately, but also the color temperature configuration of all the outputs at the same time, and also can customize RGB value.

Layer setting menu

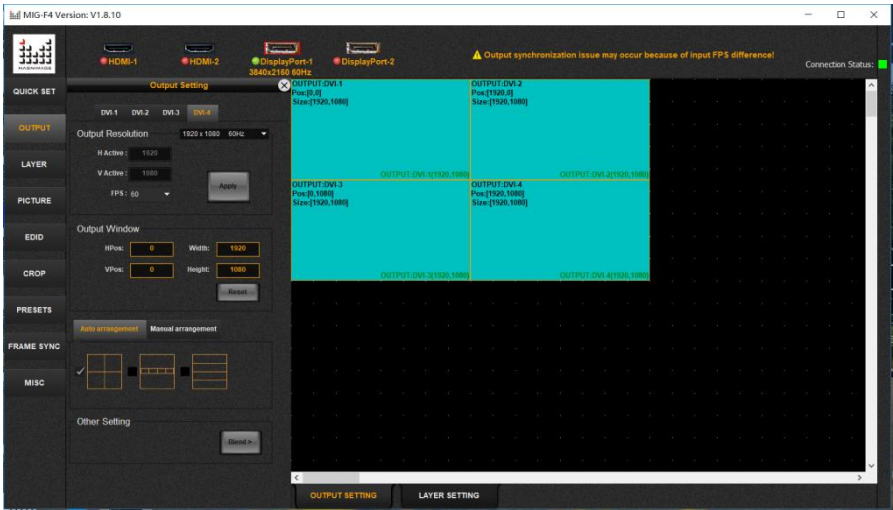


There are two functions in layer setting menu

- 1、 layer parameters setting area, F4 maximum 4 layers, can set each layer switch and layer width and height or H and V position, and can also drag
 - 2、 Zoom setting area, to zoom individual layer, can drag to set in the box or input parameters to accurately set, and can also reset to original parameters.
-

Output Setting

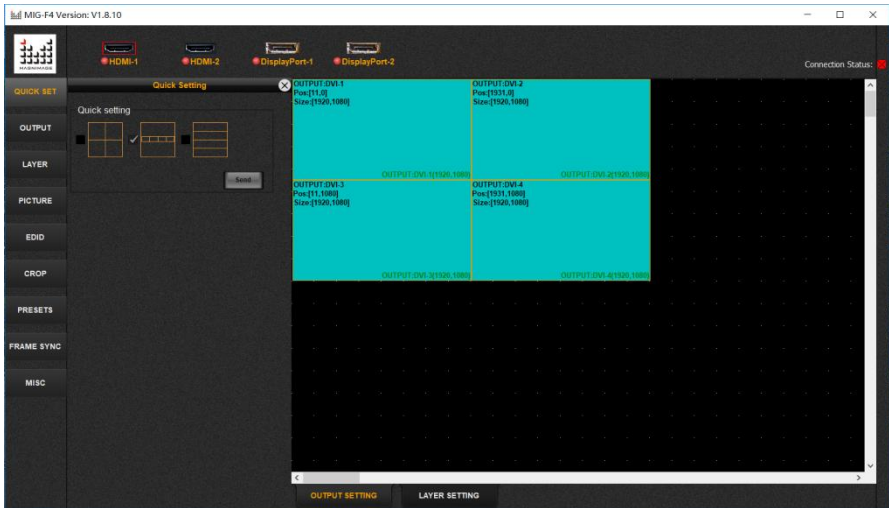
Output setting menu



The output setting menu can be divided to 4 boxes area from top to bottom

- 1、 The first box area is each output resolution setting area, the four outputs can set their output resolution separately, and can select from 9 optional resolution of fixed value or customized resolution.
- 2、 Each output window size and position can be set within the second box area
- 2、 The third box area is to set four output mosaic setting area, after the second item output window setting finished, directly select auto arrangement to do mosaic automatically; and also can do mosaic in the manual arrangement by entering mosaic parameters.
- 3、 The fourth box area is the edge blending setting area, within one output for blending area H1/H2/V1/V2 can do edge blending on all directions, select the necessary edge blending area and set blending area size and position and then set gamma value or blending curve

Quick set menu



In Quick Set mode all the outputs resolution and window are default 1920×1080 for all the 4 types of quick mosaic, and can be set “cross”, “horizontal” and “vertical”, select any one of the 4 modes to achieve quick mosaic.

Software usage

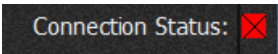
Preparation

1. COM connection mode

- a) Use USB serial cable to connect the control software with the device.
- b) Open computer control software, select the connected port such as COM3 in the dialog of serial communication configuration, then click " connect" button, computer control software will then begin communication.

2. Check connection status

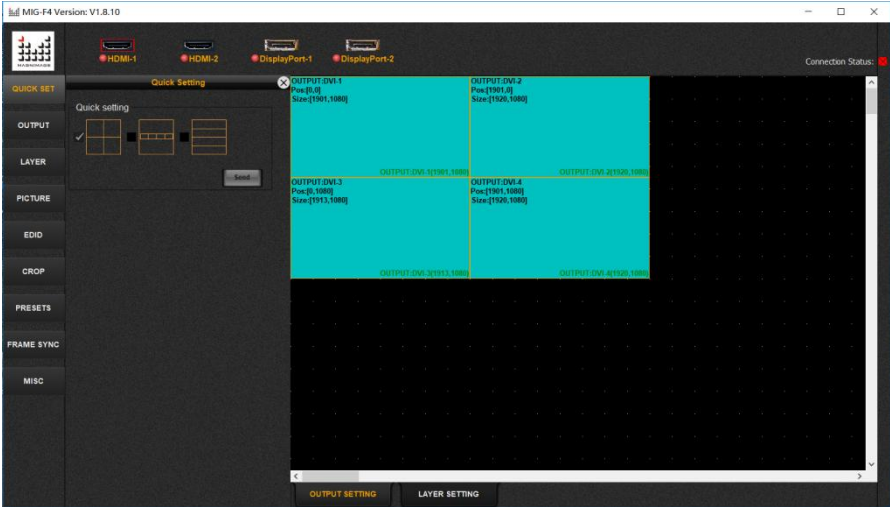
On top right of the computer software, there is connection status indicator icon.



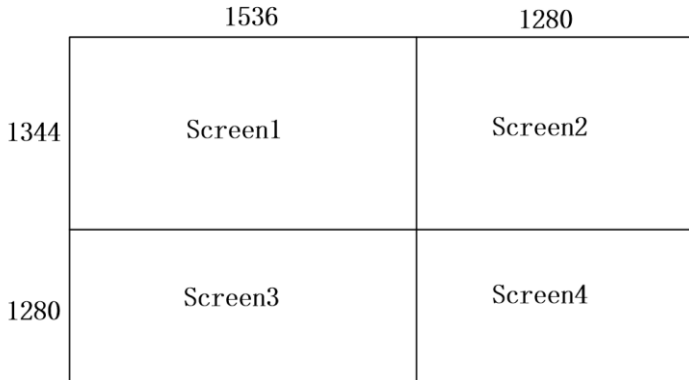
Red means disconnection, click the red icon to open the connection configuration dialog; Green means connection OK.

Specific application

Quick set menu can be used to achieve the whole set up if F4 uploading resolution is 1920×1080, as below



If the screens to be set are not standard resolution, as the example below,



1. Output setting

The four outputs of F4 can connect with 4 screens maximum, output DVI1 connect with screen1, output DVI2 connect with screen 2, and output DVI3 connect with screen 3, output DVI4 connect with screen 4, each screen resolution for the sending card setting is as the above.

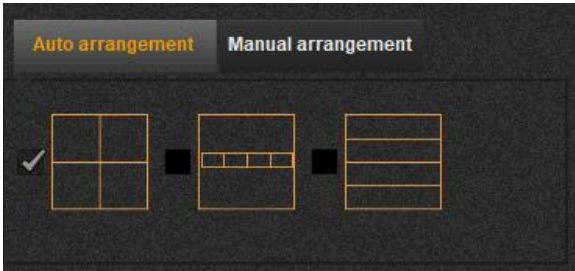
Setting procedure is as follows:

1. Set each output window parameters according to the actual pixel of the corresponding each output area, set "apply one" , or select the biggest area of the four areas and apply the output resolution to all outputs.
2. Set each output window size according to actual size of each screen.

As the following graph shows:



Then select auto arrangement configuration to auto mosaic

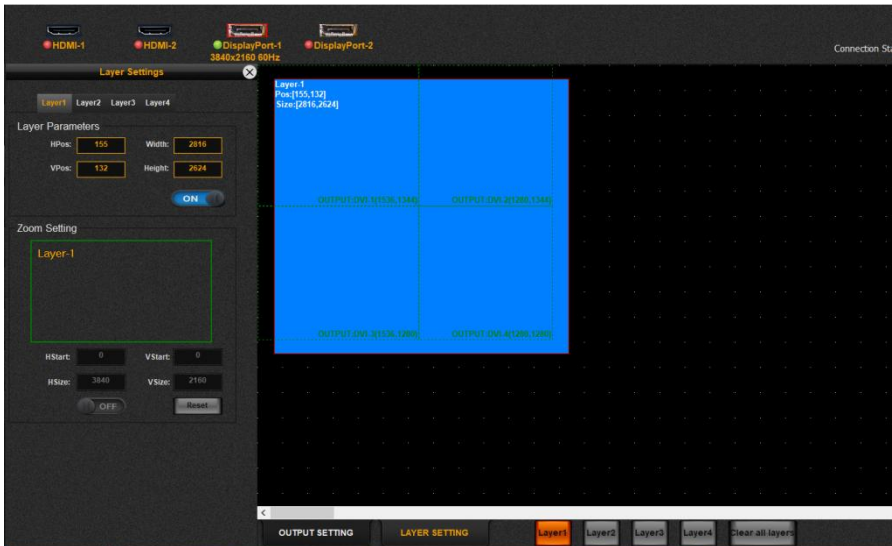


Or select manual, to set each output mosaic parameters manually.



2. Layer setting

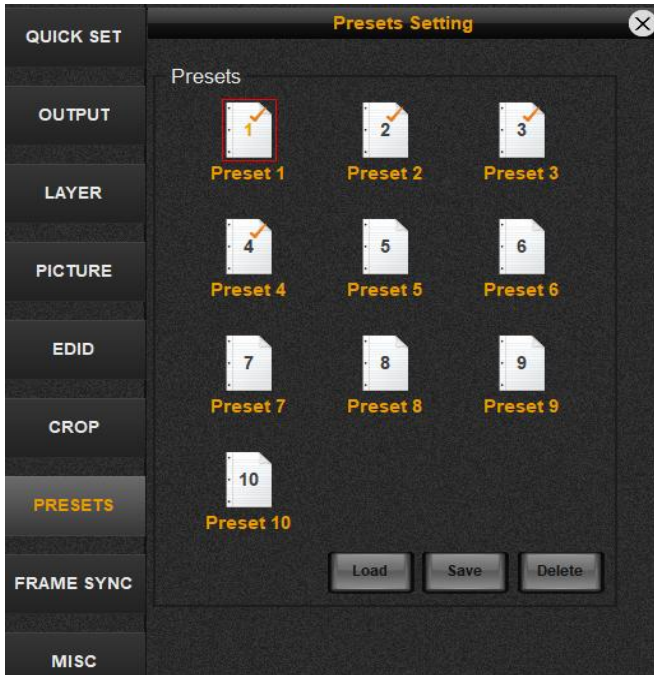
Enter layer setting menu after output setting menu configuration finished



Directly click right bottom four layer switch quick button to open relevant layer, then use mouse to drag the layer edge to modify the size and position. Also can input accurate figure in the layer setting menu, modify the size and position.

Generally F4 have maximum 4 layers, for each output only one layer available. In any case F4 has one source available.

3. Presets setting



After the outputs and layers setting finished and screen display is confirmed in normal display, save a presets in order to restore to the normal state after actions have been taken.

Select a preset and click “save button” , there will be a dialog box popped up, click “YES” button to confirm, then the preset number keys will be ticked, as the above graph shows. When preset needs to be restored, select the number key and select “Load” button. Delete presets in the same way.

Warranty

The whole unit warranty

- One year (from the buying date);
- If the invoice is lost; the 60 days after the production date will be the warranty start date for the product.

The warranty provisions

- The machine soaking and collisions produced besmirch or surface scratches and other abnormal using causes of malfunction or damage;
- Demolition machine or modification, which is not to be agreed by our company;
- Using in the not specified used working conditions, resulting in fault or Damage (such as high temperature, low voltage or unstable etc.);
- Force majeure (such as fire, earthquake, etc.) or natural disasters (like lightning, etc) caused the fault or damage;
- Beyond the product warranty.