

## Chapter 6: PC software for use

PC software FTM Installation and Application

### 6.1 System operating environment:

operating system English Windows 98/2000/ NT/XP/WIN7/Vista,

Minimum configuration CPU: surge forward 133Mhz.

RAM: 128MB

Graphics Card: StandardVGA, More than 256-color display mode

Hard disk: Typical installation 10M

Serial communication port: Standard RS232 communication interface or compatible models.

Other equipment: Mouse

### 6.2 Start systems:

**Before the system is running, to ensure normal following link:**

- 1、RS232 line computer running the software is properly connected to the controller;
- 2、Related controller signal cable, power cord is connected properly;

**System operation step:**

- 1、Turn on the controller power, control power indicator lights;  
Green, representing the operating state is switched; orange for standby.
- 2、Running the software

Find control software folder, click FWM.exe run. Program user interface as follow:



Depending on the installation software versions, the figure in the example interface and its contents may be some differences exist, consult our related service personnel.

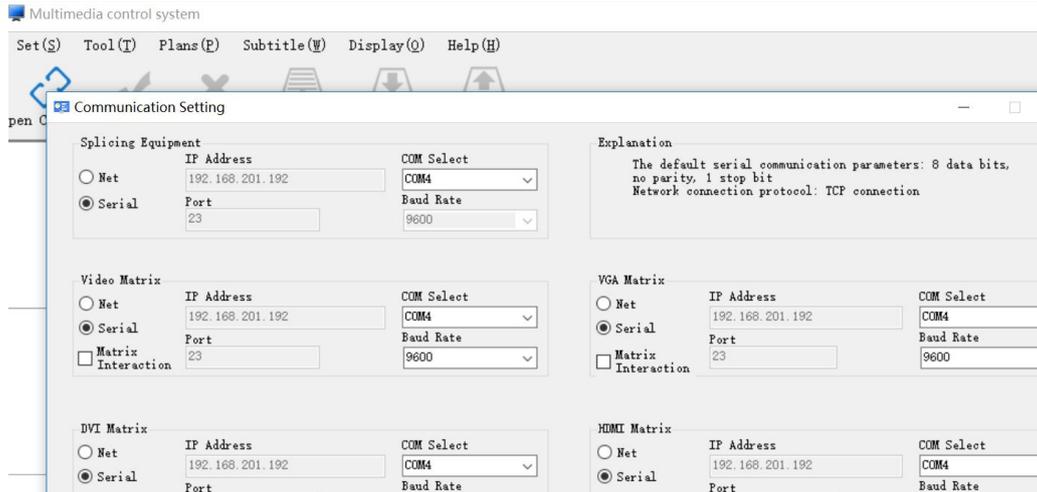
Image above marked with red font function description of each part of the user interface:

- 1、 Menu Area: Some relevant menu function selection execution region。
- 2、 Function Area: Connect uart , and some base function;
- 3、 Operating Area: Each unit represents one square corresponding control screen, you can click the mouse or keyboard, drag to select the appropriate way to control unit.

## 6.3 How to get started

### Communication Settings

Click the main menu, select "Set(S)" -> "Com Setting(C)"



First See the “Splicing Equipment”, select the correct communications port number, the system to work properly.

And if use the Matrix, you should also select “COM Select” of the correct Matirx;  
Serial port can be set to automatically open when you open the program.

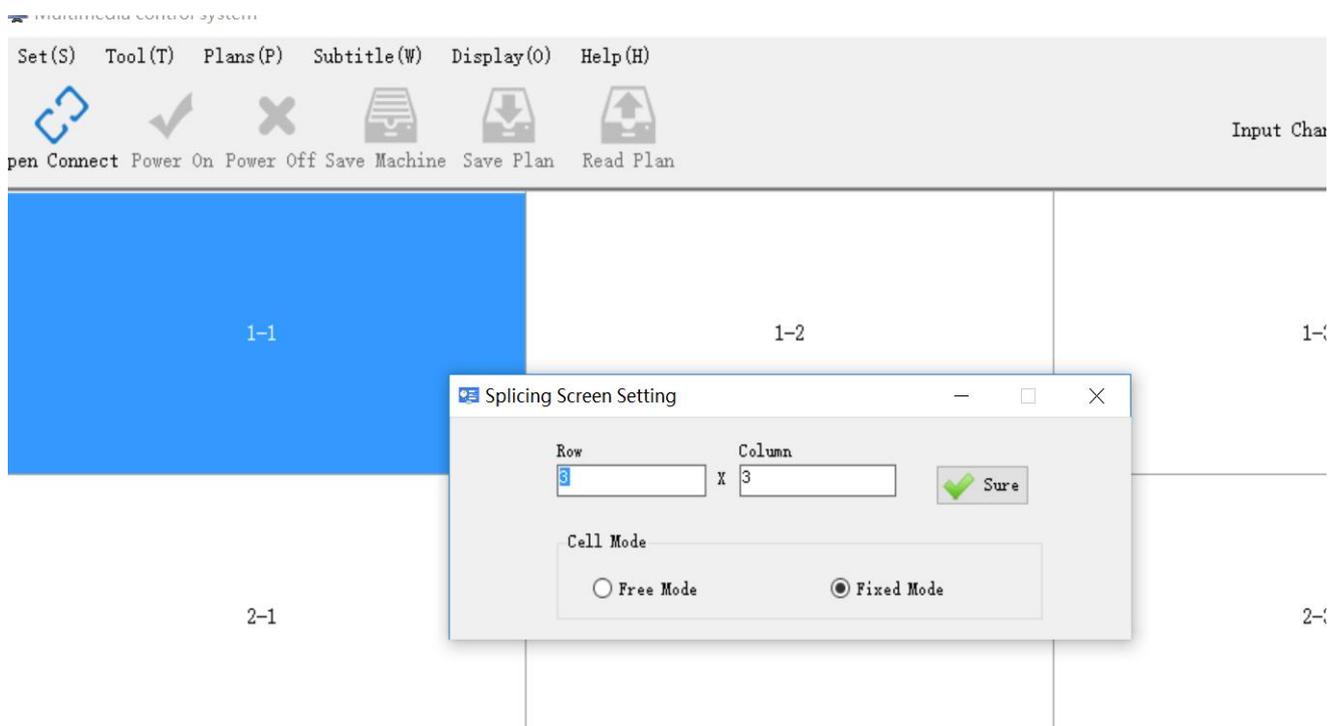
## How to know which COM number

PC serial port settings and view: Right-click the "My Computer" — “Management” — “Device Manager” — “Ports (COM and LPT)”

View the PC's serial port.



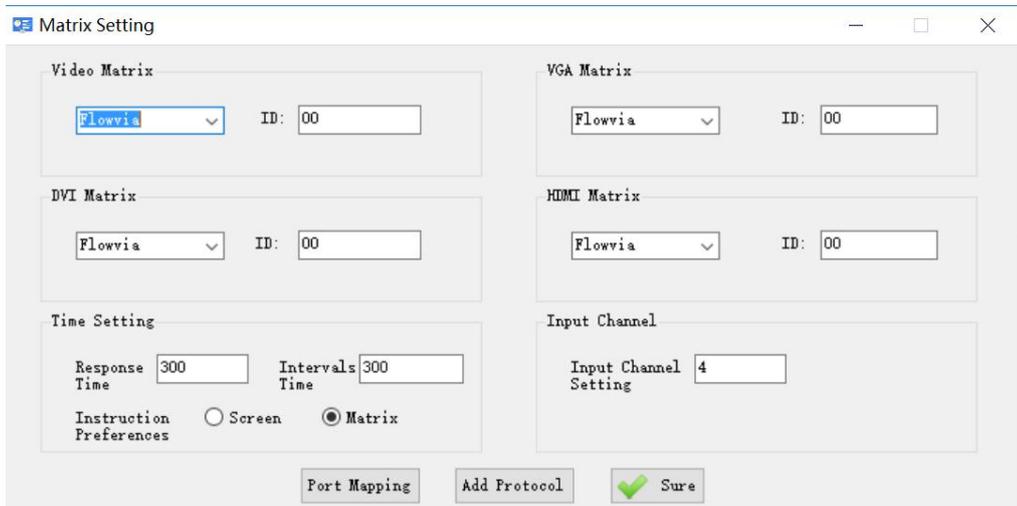
## 6.4 Splicing Screen Setting



**Row Column:** Select your screen wall and consistent splicing forms, such as 3X3, 4X6, etc.

**Cell Mode:** User can set the splicing Window to small or big;

## 6.5 matrix configurations:



### The choice of using a matrix model and set the address:

**Matrix correspondence:** Big screen matrix output channel corresponding to the position;

**For example:** The first screen corresponds to a large screen the first channel matrix output, and so on;

**Matrix starting address:** This feature is part of the matrix with less, generally do not set;

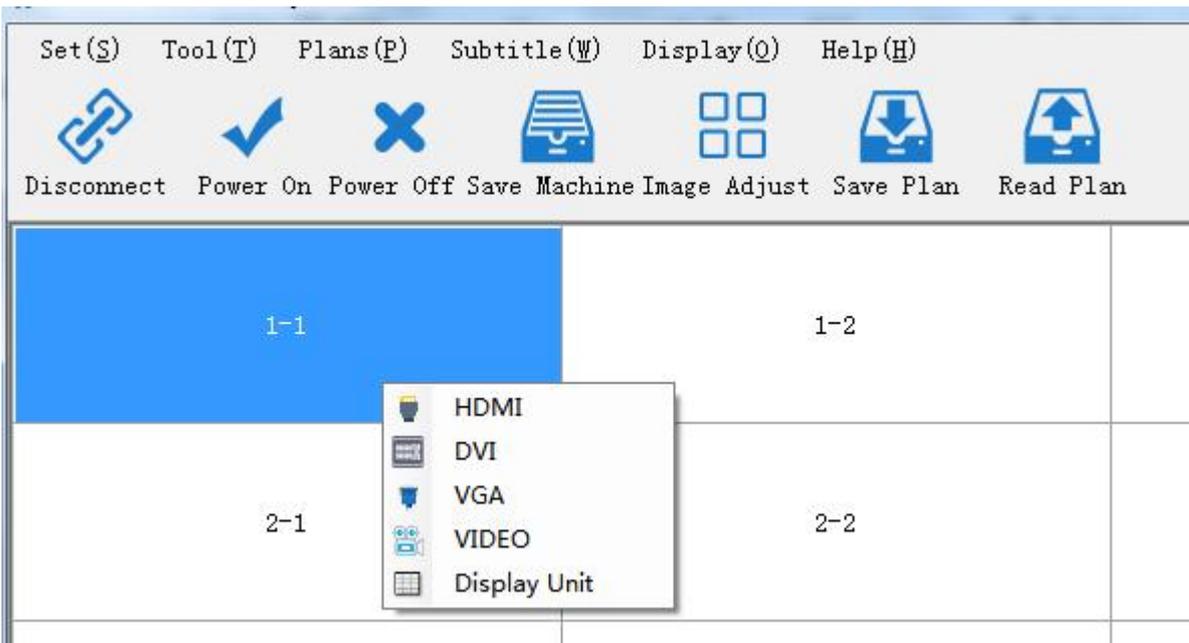
**Matrix Address:** Matrix is used to set the address, if the address is not known, please contact factory;

**Response time:** That matrix and splice time between commands;

**Interval:** That matrix of time between commands;

## 6.6 splicing operation

1、Such as serial Status bar undead open, click on the "Open Connect" button to successfully open, ie splicing operation can be carried out in the functional areas.



2、 Select the window(can select some window at once), according to your system to choose: HDMI, DVI, VGA, VIDEO. And if you do not need splice, you can select “Display Unit” to make each window show a completed Picture;

3、 As with a matrix, you can choice the input signal which input channel send on Matrix;



4、 Select the merged area.



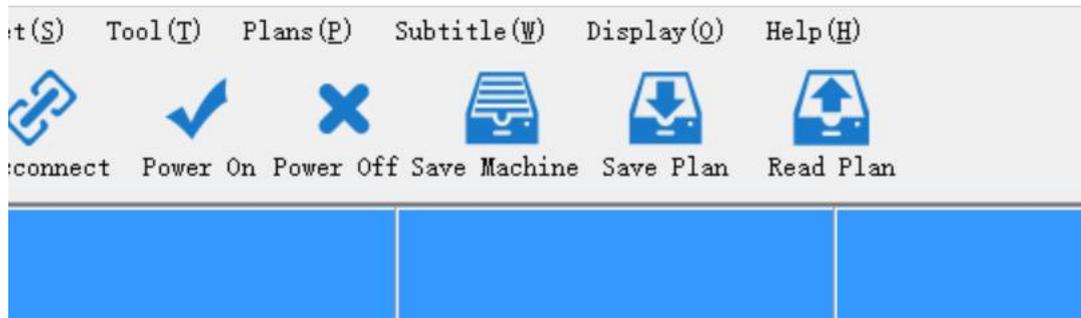
In the above case, 3X5 matrix system, we need to coordinate (1,1) - (2,3) region spliced into a 2X3 large screen display.

Follow the example operator:

1、 First, the mouse cursor (1,1) coordinate grid block, press the left button, then hold down the state, the

mouse moves to (2,3) coordinate grid block, and then release the left button, the blue area that is selected the merged area;

2、 Then press right button on mouse, and select “HDMI”, and input signal change to HDMI signal;

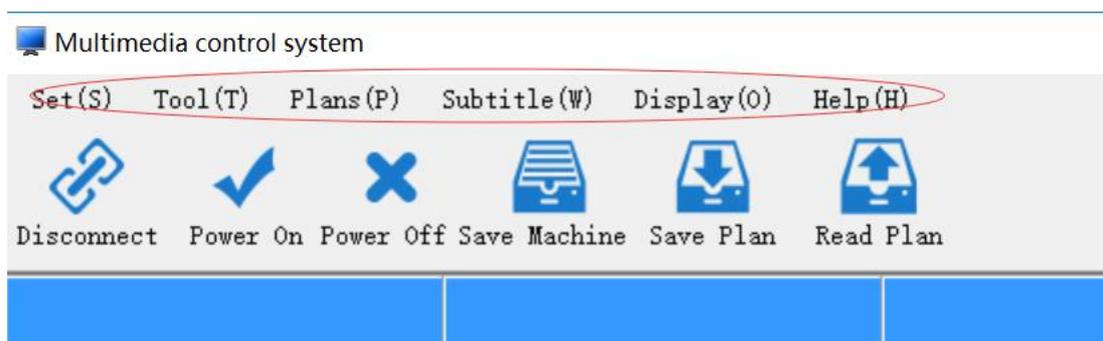


The system can respond and perform the splicing operation.

If you want to save the current settings splicing status, click the Ribbon "Save Machine"(like picture above). Current splicing forms will be saved in the memory controller inside. Turn off the power after the restart, you can still restore the previous state.

*Note: "This machine Save" takes about 2-3 seconds, please click, not by other operations or turn off the power.*

## 6.7 Menu Area:

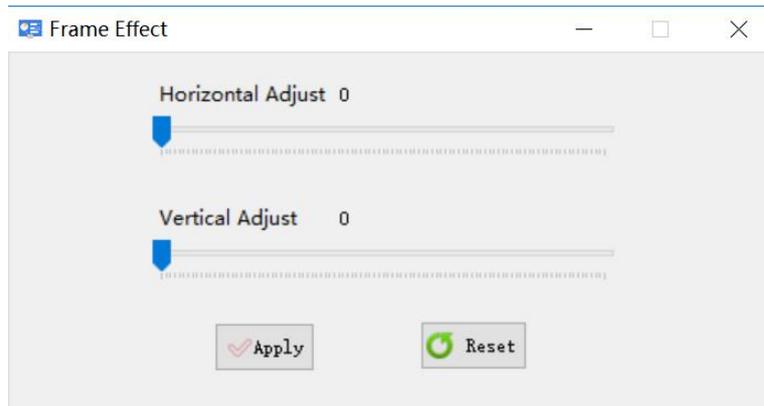


- Set(S):** Setting for uart;
- Tool(T):** Some function about screen;
- Plans(P):** Set some plans which you often to use;
- Subtitle(W):** Show some words on screen;
- Display(O):** Some useful perfect for show;
- Help(H):** User Manual, and change the language of tool;

### 6.7.1 Set(S)

This is set for uart setting;

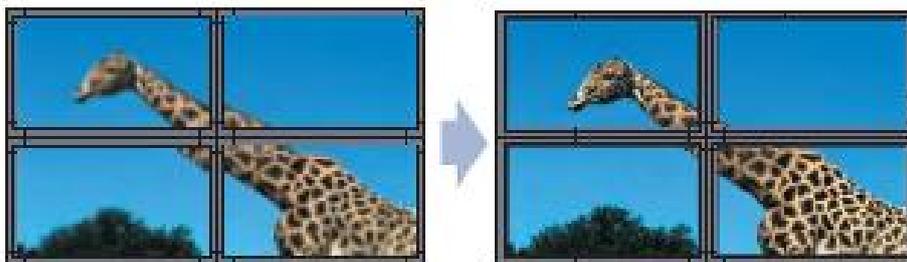
### 6.7.2 Tool(T)



#### Frame Effect:

As shown below, using the framework can eliminate graphics deformed right place splicing because the physical gap between the stitching unit, formed after. Before adjusting unit needs to determine whether the normal full screen display, especially in the PC channel has been adjusted automatically determine full screen, and then adjust the upper and lower horizontal frame size and frame dimensions in order to achieve more recognized effect.

Column as: **Border value is set according to the physical screen frame.**  
 example: LTI460HA03 border is 10MM, 20MM two screens in the value here  
 is set to be20



Before using the frame

After using the frame

### Static Screen:

Freeze the video which picture you want to watch;

### Save Machine:

Save user's changing;

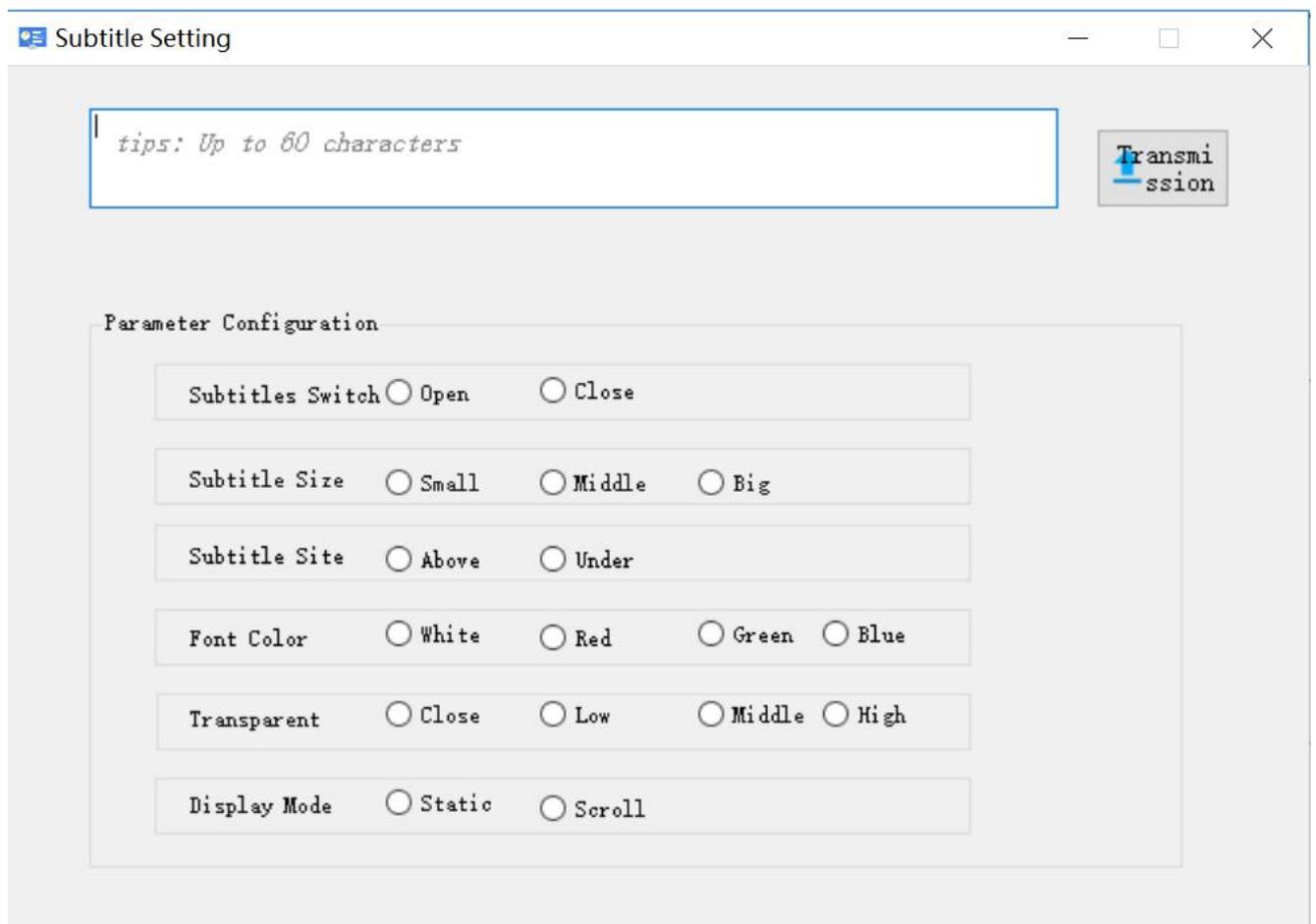
## 6.7.3 Plan(P)

Save Plan: Save the splicing setting you want to show by hotkey;

Read Plan: Show the splicing setting which one you saved before;

Polling Plan: Show the splicing setting

## 6.7.4 Subtitle(S)



717C subtitle function by the upper and lower computer software to achieve, mainly through the chip UI enables captioning function, due to the chip comes with Store, so through the PC encoding content can be displayed in the form of a command is sent to the under-bit machine, and then implement subtitles.

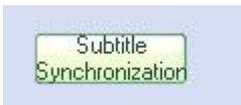
Subtitles PC interface description, subtitles function again at 717C control software has two parts:

The main setting is the subtitle function switch, display, font size, font color and background transparency.

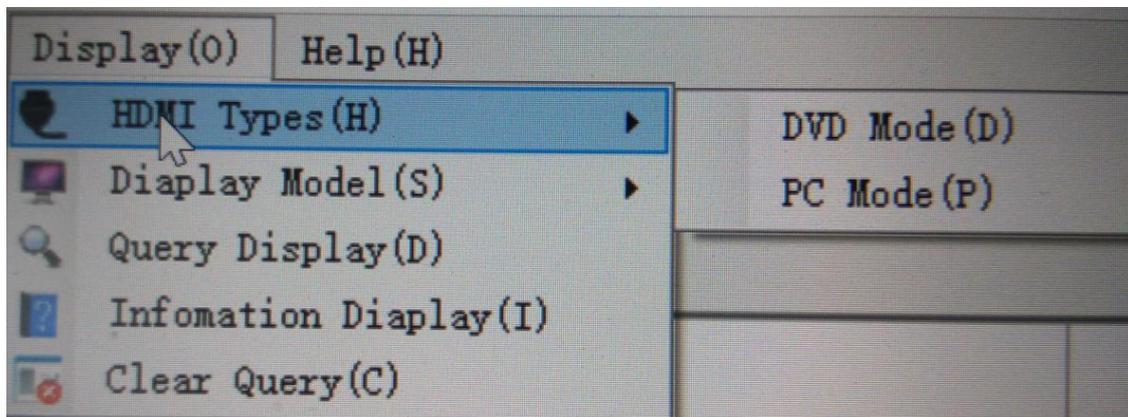
Subtitled content can not be checked 60 characters, including punctuation, English monospaced display.

Due to the realization of splicing subtitles, the stitching required to synchronize, it must be a monospaced font.

synchronous caption function, its role is to refresh each screen captions to a uniform starting point, then do the synchronization.



### 6.7.5 Display(D)



The functions are some common forms of communication stitching factory preset command macro definitions. The user can select an item, users can save and recall custom plans.

**HDMI Type:** HDMI input channel selection signal is DVD, player or PC, we recommend you choose the configuration according to the actual signal, this effect will be better, the default is PC signal.

**Display Mode:** Text mode The main enhancements for text display make a display; Image mode Mainly for video and images, made fuzzy edge processing, this function can only be achieved in this type of HDMI or DVI digital signal.

**Query Display:** Query monitor status;

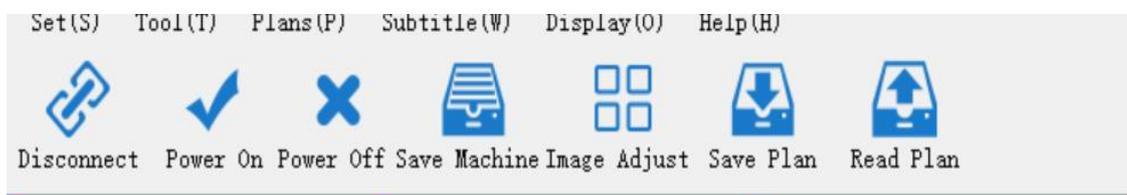
**Information Display:** Show the Monitor version infor;

**Clear Query:** Clear the info menu;

## 6.7.6 Help(H)

This is for help and change this tool language.

## 6.8 Function Area:



**Disconnect/ Open Connect:** Click this button to close the serial port. After closing, all related functions and communications are not valid;

**Power On:** Click this button to display the selected area of the power supply unit will open.

**Power Off:** Click this button to turn off the power of the selected area of the display unit, it is in standby mode;

**Save Machine:** Save the current settings splicing status and other setting, like color etc.

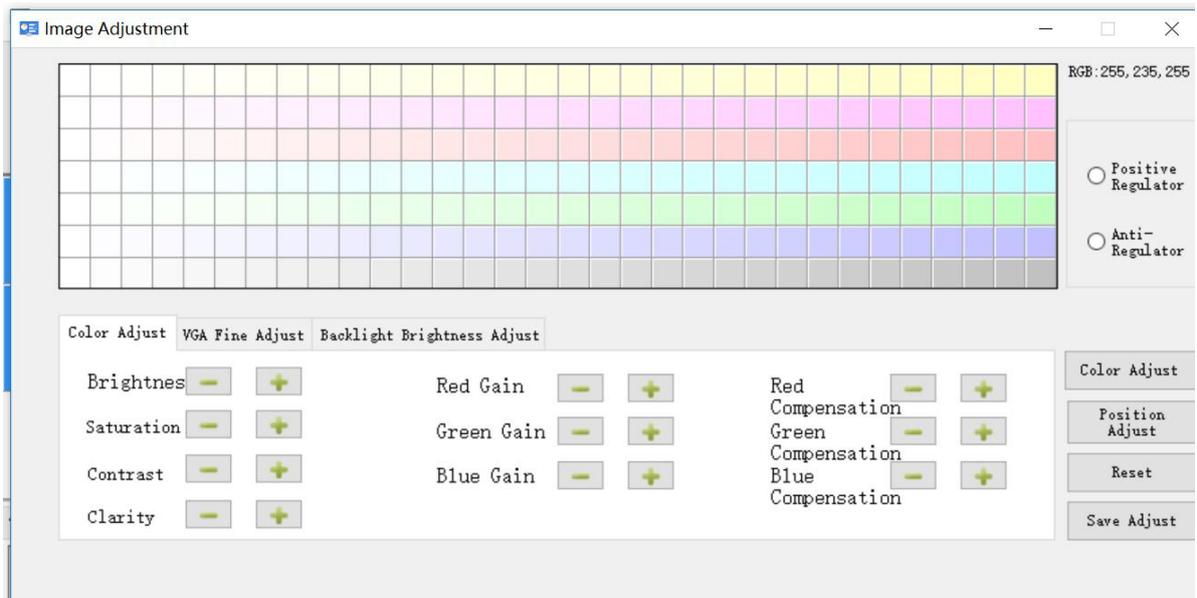
**Image Adjust:** Adjust video's color to make picture better.

**Save Plan:** Save current settings splicing status;

**Read Plan:** Set splicing status to the one before saved

*Note: "Power on" process takes about 5-6 seconds, please click, not by other operations or turn off the power.*

**Image Adjust:** Click this button to open the Image Adjustment screen.



Adjustment range: Is currently operating area selected coordinate unit area. All parameter adjustments will be effective for the selected unit area.

### 6.8.1 Color Adjust

Brightness: adjust the brightness of the screen image;

Contrast: Adjust the brightness of the screen image;

Saturation: adjust the image color depth extent;

Clarity: adjust the clarity of the screen image and focus together.

### 6.8.2 Color

Gain - Red: Adjust the color temperature balance bright red component, mainly affecting the white field, bright field;

Gain - Green: Adjust the color temperature balance bright green component, mainly affecting the white field, bright field;

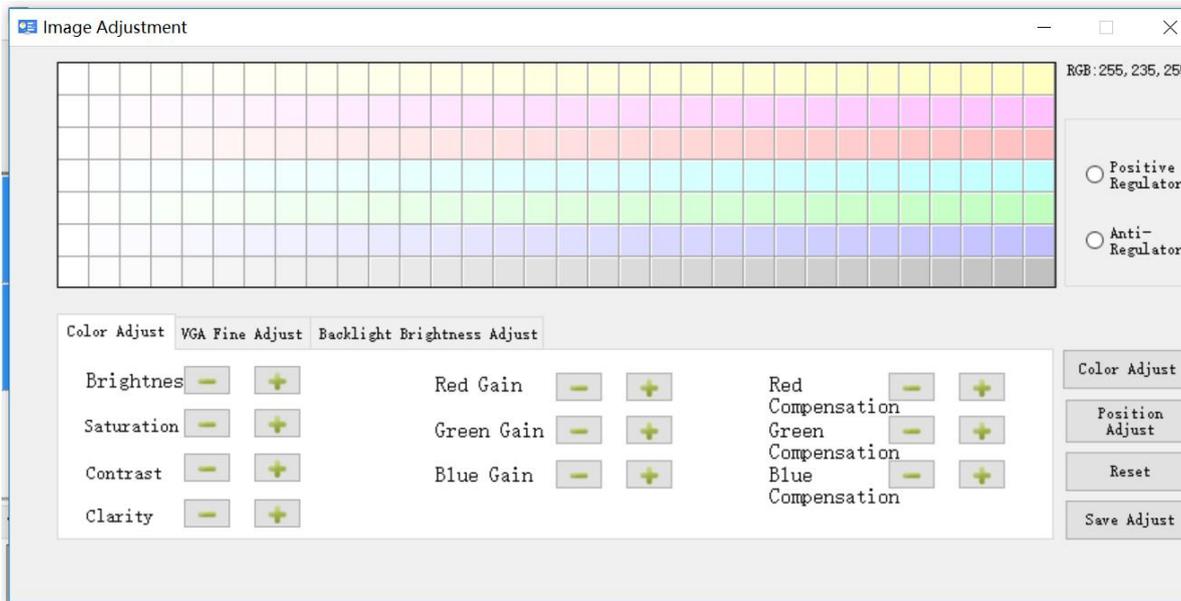
Gain - Blue: adjust the color temperature balance bright blue component, mainly affecting the white field, bright field;

Compensation - Red: Adjust the color temperature balance dark red component, mainly affecting the dark field, dark field;

Compensation - Green: Adjust the color temperature balance dark green component, mainly affecting the dark field, dark field;

Compensation - Blue: adjust the color temperature balance dark blue component, mainly affecting the dark field, dark field;

## Swatches:



1. Let's make sure the communication settings correctly, do the basic control.
2. Have administrator privileges to access this area from the control software to adjust the image adjustment options.
3. After the first switch all screens into a unified channel, giving the best signal for the whole screen white field signal.
4. Rationale first find a reference screen on the mosaic screen, and then the rest of the screen with a reference color temperature is adjusted to the same screen, So as to achieve consistent color temperature effect results.
5. Adjusted for use: First, determine whether the non-reference screen model is consistent with the reference screen, and then determine whether the screen backlight brightness to reach agreement with the reference screen, if not you can debug brightness backlight brightness or brightness, contrast parameters equivalent to as close to the base screen brightness. Then prepare to adjust the color temperature of the non-reference screen, first in the color table to quickly select and color similar to the color of the reference screen, and then manually adjust the color temperature of the gain / compensation of red, green and blue (gain mainly affects bright field, try to adjust the gain under the white field the RGB values; compensation mainly affects dark field), by fine-tuning reach base screen color consistent so far. Note: Positive reconcile anti-tune the color corresponding to the color table is the opposite, ie positive tone screen colors and swatches of color is consistent, anti-tune the screen colors and swatches is the opposite, the default is the anti-tune settings Also you can pay attention to hover over the color table value corresponds to the block, this value shows the principle of complementarity of red, green and blue Huang Ziqing.

**Automatic adjustment:** Under VGA channel, the system automatically adjusts the image color and display position.

*Note: "Automatic adjustment" process takes about 3-6 seconds, please click, not by other operations or turn off the power.*

**This machine reset:** Click this button to display unit, it will adjust the parameters of the selected area, said all restored to factory condition.

*Note: "This machine reset" process takes about 3-4 seconds, please click, not by other operations or turn off the power.*

For VGA signal, you can manually adjust the second page (special adjustment) of parameters



### 6.8.3 Geometry

Horizontal Position: Adjust the horizontal position of the screen image display;

Vertical Position: Adjust the vertical position of the screen image display;

Clock: adjust the image sampling frequency;

Phase: adjust the image sampling phase.

These parameters are related to the implementation of the next PC channel "position automatic adjustment" of the relevant parameters, if the automatic adjustment can not meet demand, these parameters can be adjusted manually (manual adjustment is generally not recommended).

### 6.8.4 front-end brightness gain

Red: Adjust the color temperature bright red gain weight;

Green: Adjust the color temperature of light gain green component;

Blue: adjust the color temperature of light blue component gain.

Such parameters are under the PC channel, automatic color adjustment parameters, if the automatic adjustment can not meet

their needs, you can manually adjust the gain parameter representative of the majority of bright field, mainly to enhance the contrast, it is generally not recommended on hand adjustment.

### 6.8.5 front-end brightness compensation

Red: Adjust the color temperature compensation dark red component;

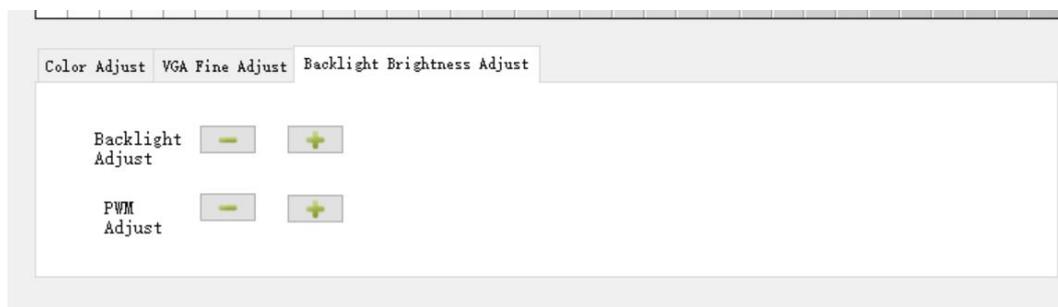
Green: Adjust the color temperature compensation dark green component;

Blue: Adjust the color temperature compensation dark blue component.

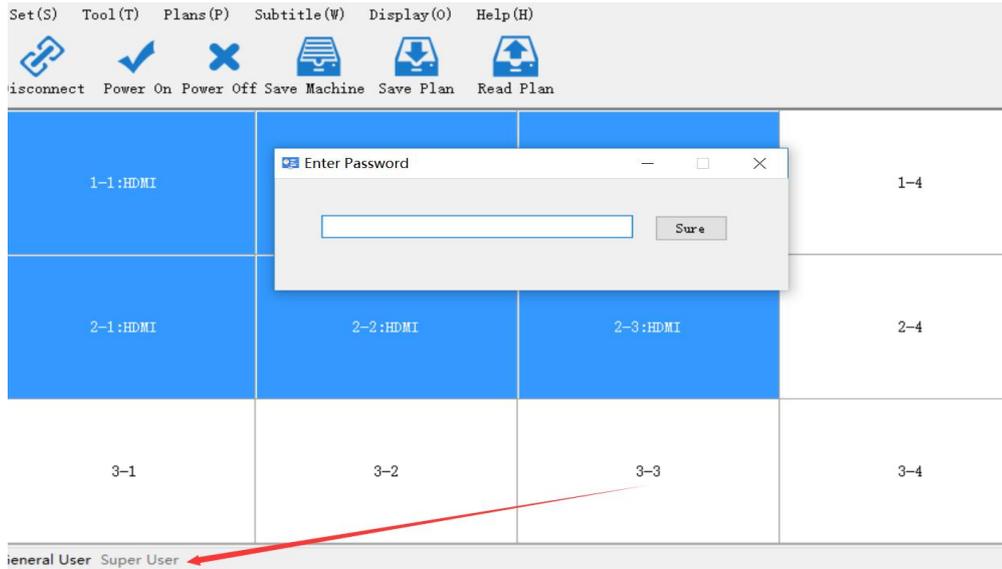
Such parameters are under the PC channel, automatic color adjustment parameters, if the automatic adjustment can not meet their needs, you can manually adjust the parameters of the compensation on behalf of the majority of the dark field, mainly for brightness enhancement, it is generally not recommended on hand adjustment.

## 6.8.6 Backlight Brightness Adjust

Backlight control module, backlit PWM output voltage regulation and frequency regulation.



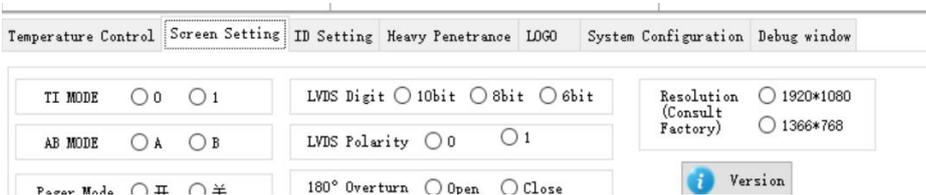
## 6.9 Special additional functional area (password required background):



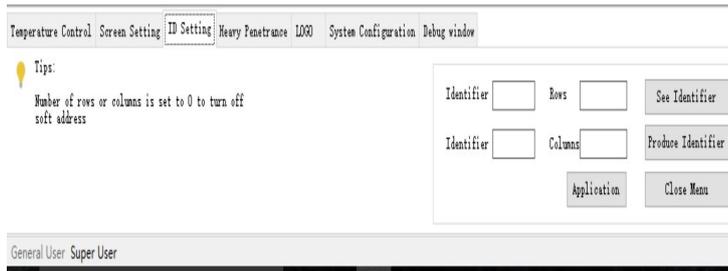
The system is provided with "Super User" operating authority, input "123321" to open addition function.



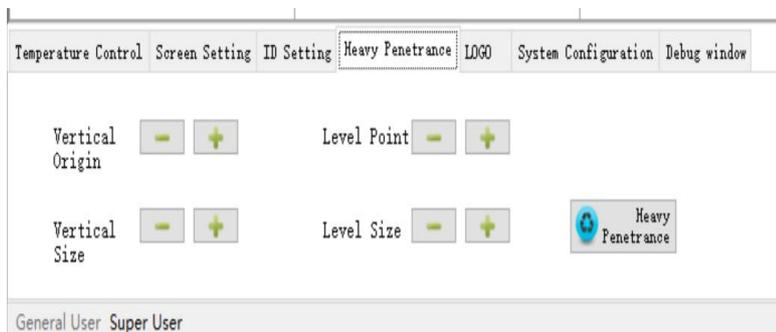
Temperature fan control, the default is "Auto" mode: > 45 degrees open, < 40 degrees off; The other is normally open, normally closed, and other modes can be set manually for customers to choose.



There are a number of test items set about 717L LVDS signal output box (convenient point screen test) and bake mode switch, pager mode must be the case in the absence of a signal can be opened next ah, function: red, green, blue, white, black and other colors flicker, no it can be closed.



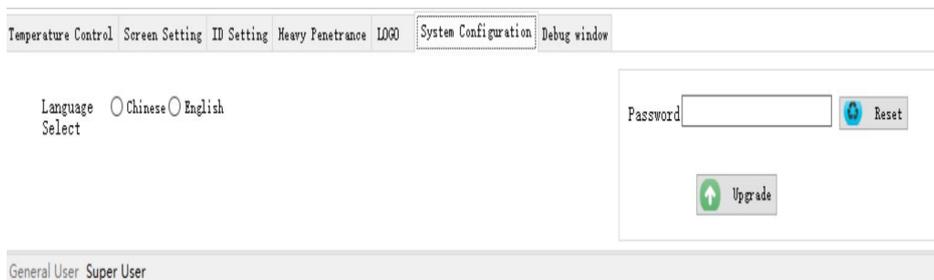
Soft ID number settings and set soft ID, first identification code can be generated, and then generate an identification code to set the ranks of the address.



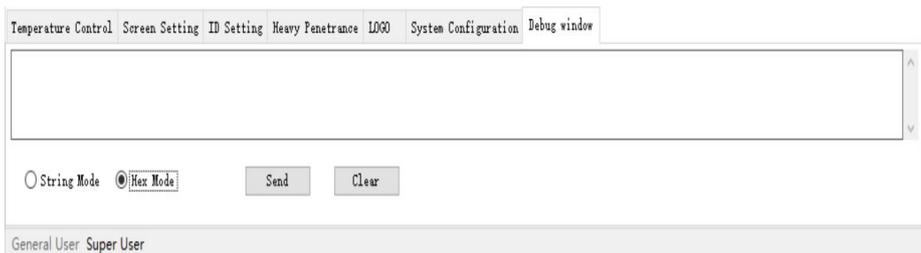
Adjust CVBS like trimming image processing like doing a screen display size adjustment, adjustment disorder can be restored.



Open LOGO display switches and LOGO stitching function.

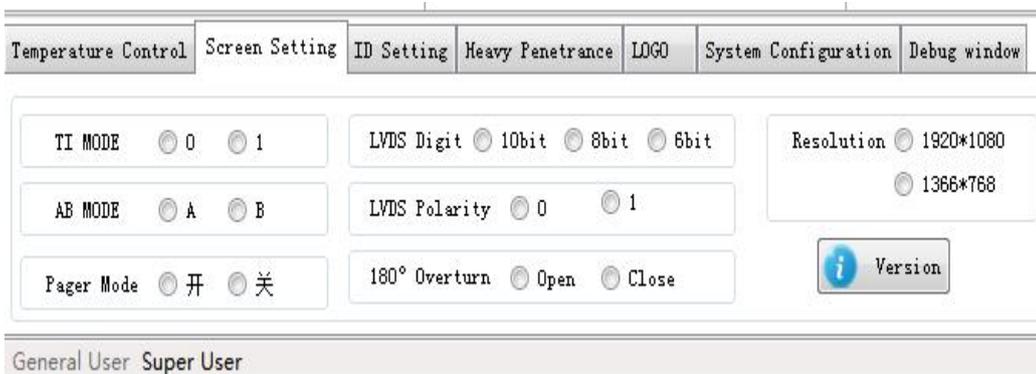


General reset interface, password cjfw, this reset to reset all settings except (time limit and plans) outside, including soft ID will be reset. Also you can change the OSD language.



Debug window for engineer using debug.

Senate panel switching function and 180 degrees Features.



This configuration screen parameters, the type of screen parameters can be increased and flip. Switching will be black screen parameters restart, Please note. Flip switch can be used normally.

## Chapter 7 Safety Precautions

**7.1.1 Please read this manual;**

**7.1.2 retain this manual for future use;**

**7.1.3 before the device is turned inside the device should check whether there is abnormal;**

- 7.1.4 Power on the device before the power supply voltage to be determined, which is exactly adjusted to 220V;**
- 7.1.5 careful not to step on the power cord, do not cover the power cord;**
- 7.1.6 before any part of the equipment to make changes, first off;**
- 7.1.7 If the following occurs, please let service personnel;**
- 7.1.8 The power cord or plug is damaged;**
- 7.1.9 device does not work;**
- 7.1.10 equipment damage;**
- 7.1.11 equipment has obvious cracks.**