YDEA C5 User Manual

Version: 2-0-5

Statement Respectable

Users:

Welcome to use products of YDEA! We are appreciated if our user manual offers help and convenience to you when you are using or learning about our products. In order to pursue accuracy and reliability, our company will modify or change the content of the manual at any time without notification. Should you have any question or good suggestion, please contact us with the information in the manual. We will spare no effort to solve your issue. Simultaneously, after assessment we will adopt your suggestion with many thanks!

The copyright of this manual shall be owned by YDEA Technology Co.,Ltd. Any individual or unit without written permission shall not copy or extract the content of the text in any form.

In order to ensure the control system running in the most stable state, Please use the YunZhi studio ,Do not use other studio software。If the special circumstances ,Use the other manufacturer's studio software , Please after setting the screen connection parameters, disconnect the computer and the controller's USB cable。

Catalogue

Security statement

In order to avoid danger, please use this device according to stipulation. If damage occurred, please do not repair it without professional person and contact after-sales service personnel of YDEA.

⚡	High voltage danger: working voltage is 100-240V AC Voltage is 100-240V AC
⚠	Ground connection: the ground wire of power is connected to the ground. Make sure the conductor connecting to the ground is working well.
☢	electromagnetic interference: device shall be away from Magnet, motor and transformer.
☂	Dam proof: device shall be stored in dry, clean circumstance. Please pull the plug once it has liquid
💥	Be away from inflammable and explosive goods
⚠	In order to avoid security incident, please prohibit liquid, mental fragment from going into device.

Outline

C5 system is a professional LED screen controller of YDEA, which has the functions of front-end video processing and screen controlling. Its professional image control and friendly

interface make the screen controlling easier.

Product characteristics:

1. Professional video output interface, supports HDMI and DVI signal input; the maximum input reaches 1920*1200@60HZ；

2. C5 high-definition controller adopted brand-new structure, realizing rapid clicking screen, which saves lots of time of the engineer;

3. C5 high-definition controller supports DMX controller;

4. Support USB and computer correspondence and shortcut panel operation;

5. Support encryption function；

6. No need reset when change screen, which is easy-maintenance, convenient and quick；

7. Intuitive LCD display interface and clear signal indicator light simplified the control of the system；

Technology specification

controlling area	max control pixel 2304000
input resolution ratio	1920x1200,2048 x1152, user-defined
output resolution ratio	1920×1200,2048x1152,2560x960,3840x640
video interface	DVI/HDMI Meet standard of HDMI-1.3
spot-spot correction	brightness, chroma
DMX interface	support
upgrade online	support
distributor	support
loading segmentation	random
creative display	support
transfer distance	100m
control support	USB, panel button
temperature	-20℃- 75℃
input power	100-240VAC 50/60HZ
size	length480×width300×high44 (mm)

Appearance introduction

Front-panel introduction
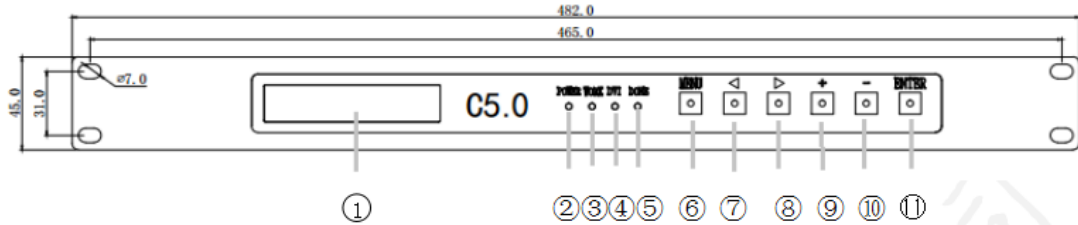
① LCD module	② power indicator
③ indicator	④ DVI indicator
⑤ Doneindicator	Menu button/exit button
⑥ menu plus	⑦ menu minus
⑧ value plus	⑨ value minus
⑩ confirm button	

back-panel introduction
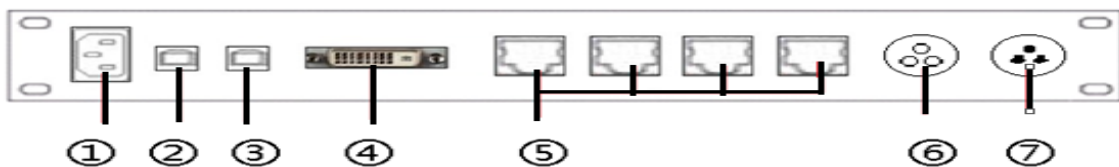
① power interface	② USB interface
③ SPI interface	④ DVI input interface
⑤ signal output interface 1~4	⑥DMX input interface
⑦DMX output interface	

interface introduction:

Power interface: choose AC100-240V 50Hz/60Hz

USB interface: connecting USB cable and the USB cable of computer to realize controlling software correspondence.

SPI interface: USB interface: connecting USB cable and the USB cable of computer to realize controlling software correspondence.

DVI input : connect DVI cable and DVI interface of the computer graphics;

Internet access 1,2,3,4 : all are used as output of the main controller. The one near DVI output interface is the first output end. By Such Analogy, then is second, third and forth output end;

Indicator:

1.power indicator: on, means work normally; off, means out of work;

2.working indicator: blink, means the sending card work normally; on, means sending card our of work. Please make sure the computer graphics is set on the mode of copy.

3.When DVI works well, DVI light is on, working light is not blinking; When working light is on, DVI is off, to check whether the DVI signal is connected to the controller correctly.

Panel operation introduction:

operation	button
open main menu	Click "Menu" at the non-menu status

back to previous menu	click "Menu" button
Choose every item	click ◁ or ▷ button, shift to previous or next item
parameter value	when the right end of the menu is number or parameter of the choosing item, click + or - button
Enter next menu	When the right end of menu is >>, click "ENTER"
Operate specific function	When the right end of menu is >>, click "ENTER"
Confirm operation	When the right end of menu is >>, click "ENTER"

Menu introduction

Main menu

LOGO : Used to show main interface of company LOGO;

Screen parameter: set parameters for screen, including brightness and position ;

Function setting: set screen function parameter, including image on and off, chroma adjustment etc;

Factory settings: when mistakes occurred, system can turn back to factory settings;

Language settings: choose system language, including Chinese and

English;

Software version: used to read software information

Password with time synchronization： support encryption system to

read time of encryption;

Secondary menu

(1) screen parameter

Brightness adjustment : adjust brightness;

Image rotation: support content rotation in the LED screen, only for

special screen;

Horizontal initial point: the initial point of X axis is 0;

Vertical initial point: the initial point of Y axis is 0;

Horizontal width: default value is 1920;

Vertical height: default value is 1200;

Step size: have 1，16，128 modes;

Internet access: used to set the copy relationship between main

controller ports;

Internet access height: used to set the max height of the image from

the first output port of the main controller;

(2)Function setting

Screen on/off: off, screen is black; on, the screen works normally. The
default status is on.

Static image : on, make the active window static; off, the screen works
normally. Default status is off.

Usage mode: used to select screen variety. 5 modes include full-color,
test, single-color, double-color and virtual. The default
mode is full-color.

DVI phase: used to set main control DVI clock series, helping to solve
the screen blinking issue.

**Loading segmentation:** have verticle and horizontal modes.

Frame frequency choice: use to set screen information updating
frequency, with 50HZ and 60 HZ two modes.

Chroma adjustment: used to set Chroma parameter, including red,
green and blue.

DMX setting: after connecting to DMX controller, DMX default status is
off and address is 1.

System signal connection diagram

C5C general system hardware connection
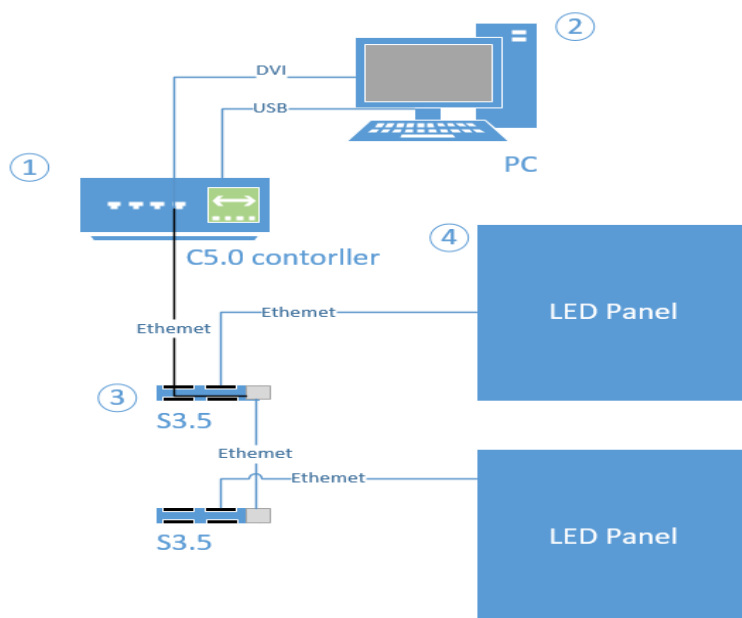
system statement

1). All of the 3 kinds of receiving card can connect the screen. The one

used as below is S3.5 general receiving card. For card S3.0 and S3.1.1,

use corresponding receiving card.

2). Different receiving card matches with different procedure. Other

operations are the same.

3). The Internet port of the receiving card makes no distinction between

input and output. Can use any normal Internet cable connecting to

any port of the controller.

4). Use one Internet port of the receiving card cascading to another

receiving card;

C5M Micro system hardware connection diagram
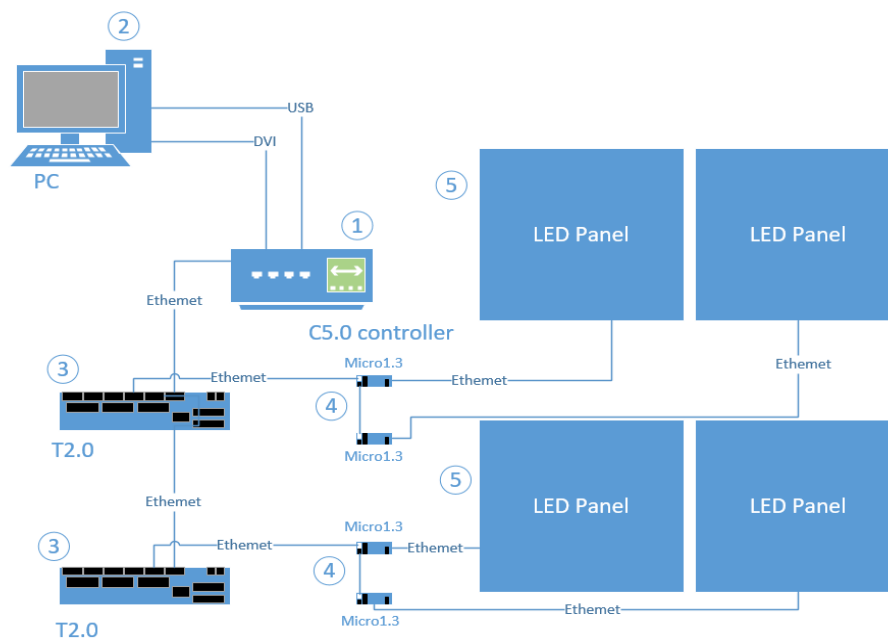
system statement

1). Take Miro 1.3 connection for example. For different Micro receiving card, should use different procedures, and other operation are the same.

2). 4 output ports connect to the In port of T2.0 via standard internet cable, Simultaneously, Link port is used to cascade to several distributors.

3). There are Input and output ports in the internet port of receiving cared. In/out means input/output. 8 ports of T2.0 output signal.

4). Use output port of receiving card to cascade to IN port of another receiving card.

C5 system software introduction

C5 software basic operation introduction

System switch and basic operation introduction

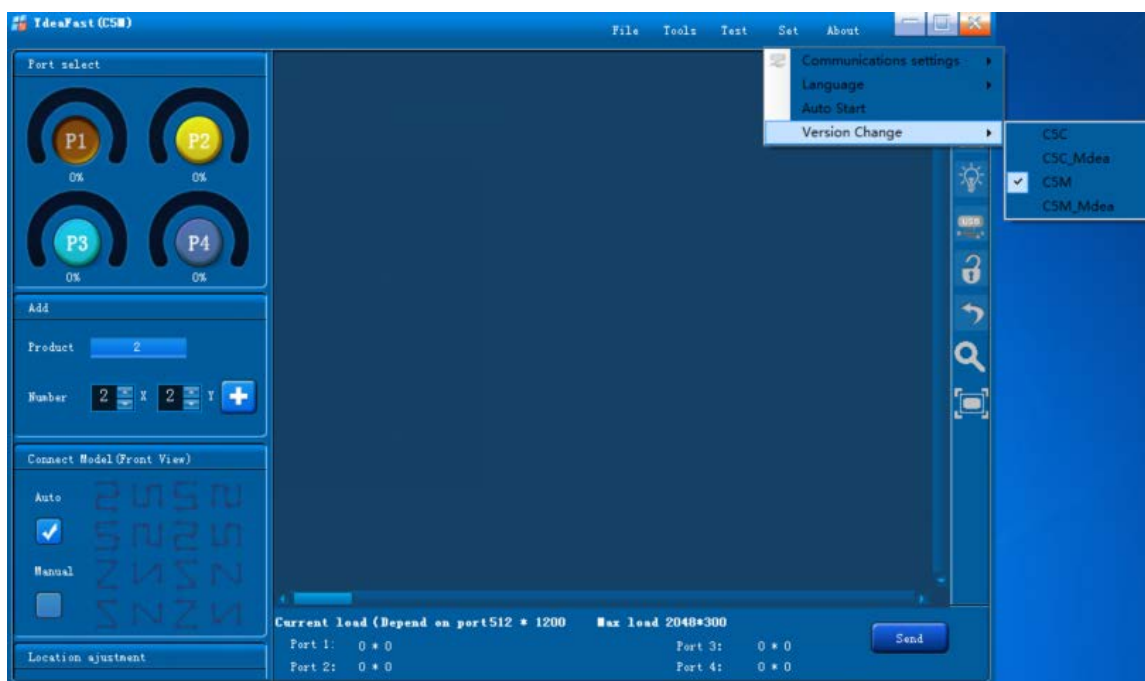Double click icon, enter into control software

YdeaFast →system switch

Click [Set]---[Version change]---and switch to C5C/C5C_Mdea/C5M/

C5M_Mdea. ; C5C/C5C_Mdea represents general system/MDEA(GB

Ethernet). C5M/C5M_Mdea represents Micro system/Mdea (100M

Ethernet). When choose a new system, the software will restart. At the

same time, at the top left corner will have ;

（picture1 software interface）

Main interface introduction

（ picture2 software interface ）

Main interface divided into 4 areas. They are function, operation, menu
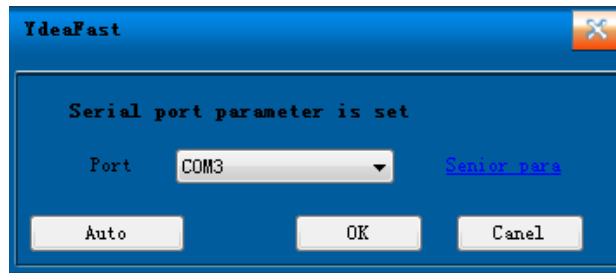
and shortcut menu.

Basic operation introduction;

Software basic operation

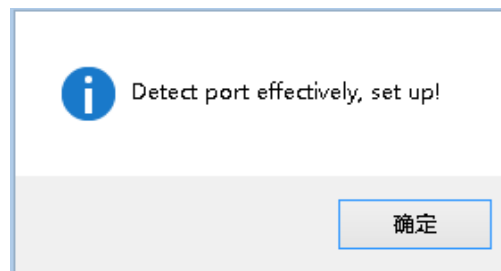**（1） Test serial port connection :**

1.1 Only when serial port connected normally, computer sends

parameter to controller. Even enter into the software interface,

must make sure the serial port is connected.

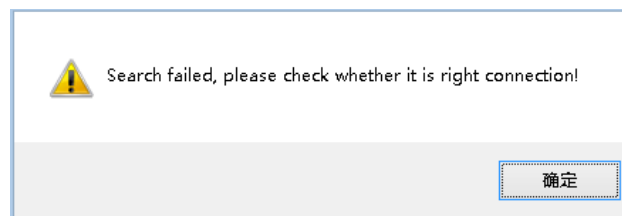1.2First click ![USB], then click "Auto"

(picture 3 search for serial port)

1.3 Serial port test successfully: test successfully window appears

(picture4 window)

1.4 Serial port test failed: test failed window appears
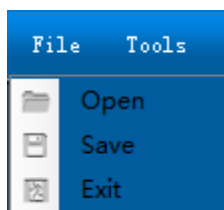

(picture 5 window)

Solution to serial port test failed :

1.According to the connection pattern of hardware, to check whether the

USB transfer to serial drive is working normally.

2.Pull and insert the USB cable again. It will fail to detect the serial port if

the USB cable is on poor connection;

（2）Menu column introduction

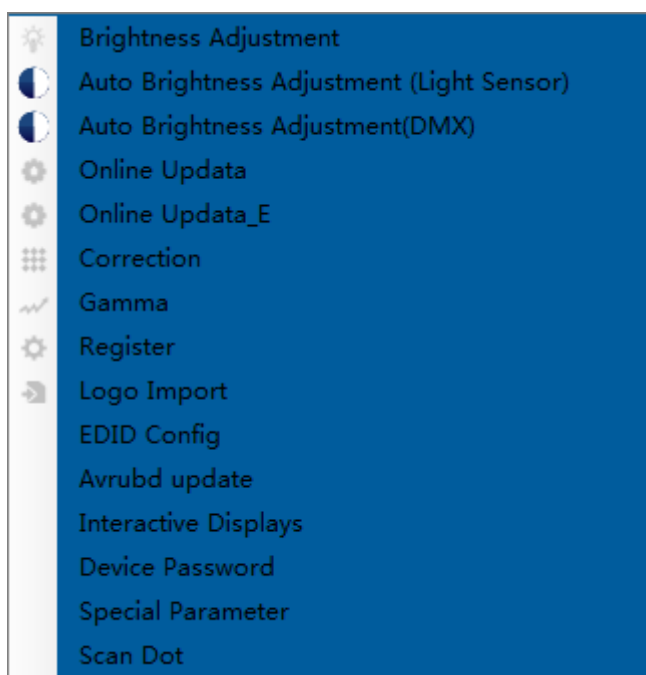### 1.File

(picture6 file)

Open: can open the screen connection parameter file save before ;

Save:　can save the current parameter for future use ;
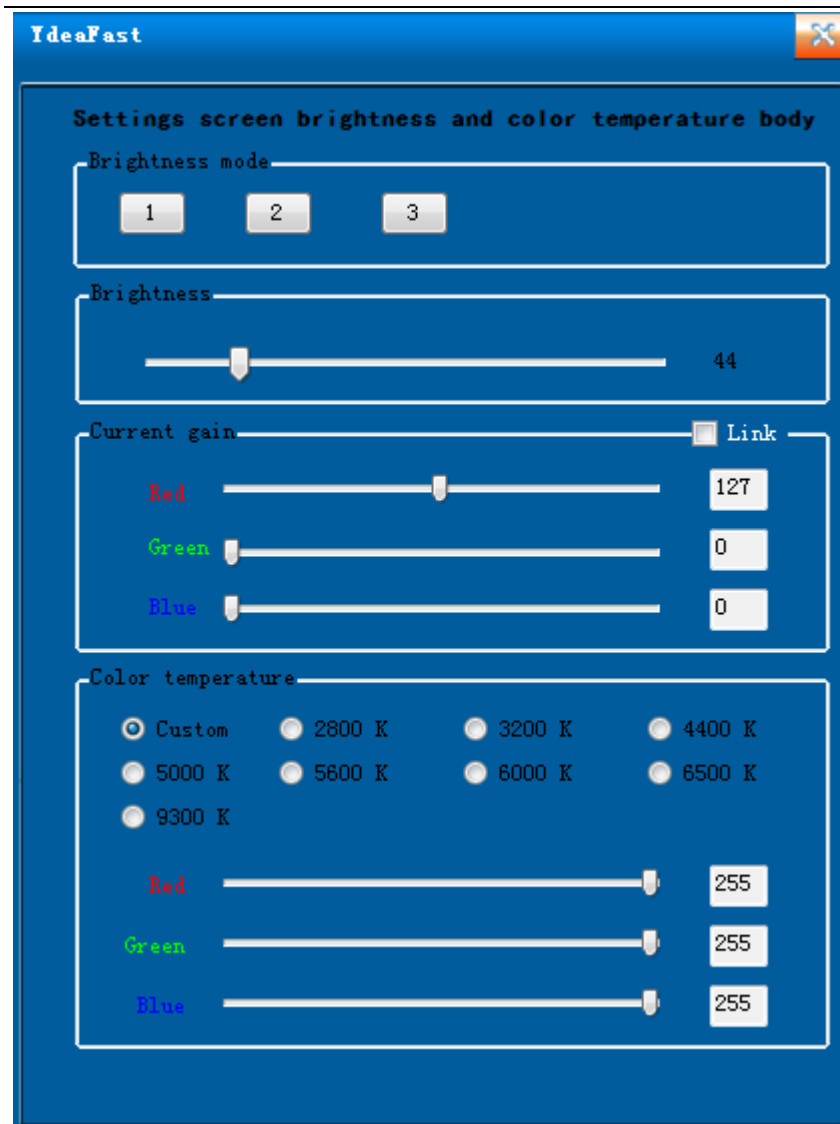
Exit:　 click to exit the software ;

2. Function

(picture 7 function)

Brightness: adjust the whole brightness, current gain, Chroma ;

(Picture8 Brightness)

Brightness range: 1-256；

Current gain range: 1-256；

Single Chroma range: 0-255；

Attention: if it is necessary to adjust Chroma coordinate, can change the

arrange value of Red, Green and Blue to get the needed Chroma

coordinate；

Automatic brightness adjustment_Light Sensor: refer to manual of

brightness automatic_Light Sensor ;

Automatic brightness adjustment_DMX: refer to Brightness automatic

adjustment_DMX manual ;

Upgrade online: Input code 86586287, and enter into upgrading

interface. Select the hardware, and import BIN file,

clicking upgrading ;

Attention: In C5C interface, MCU procedure M5.0-V5.98 version or above to match with latest version upper computer software, can only recognize SBIN file and no need to select hardware (SBIN file is the latest upgrading file.) ;

Online upgrade_E version: need latest upgrading procedure, please

contact technical personnel ;

Spot-spot correction: according to your need, make spot-spot

Correction ;

Gamma: according to your need, adjust different gray level
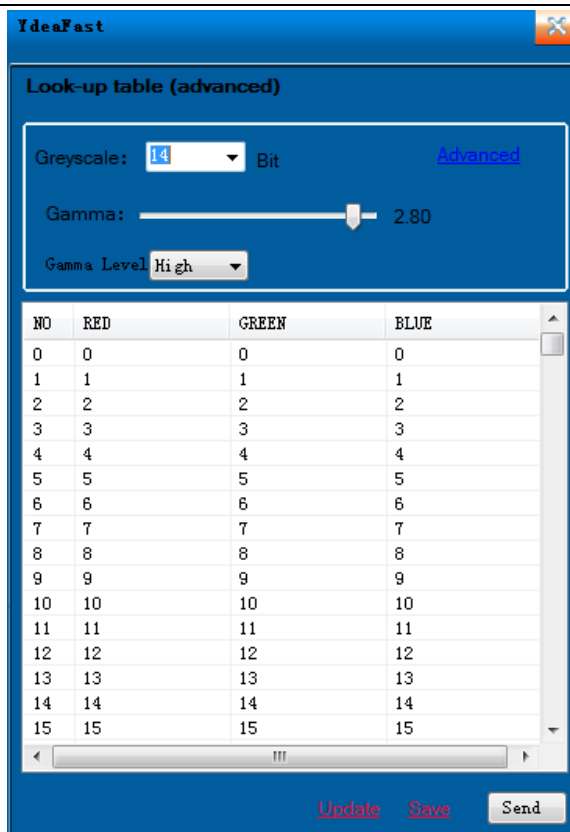
(picture 9 Gamma Settings)

**Gamma:** According to your need, adjust different gray level；

Gray scale value arrange: 8-16 Bit;

Gamma transition value arrangement: 0.000-3.00, used to adjust

gradient of gamma curved line；

Gamma Level: high, middle, low. It can realize high grey low brightness

Effect；

Update, save, send: update to be the Gamma diagram with the current

setting parameter. Save the Gamma diagram at the software,

which will execute the saved diagram automatically when

we open the window next time. Finally, send the parameter

to the controller；

Register settings: According to requirement to set the value of the

register. Register shall have a value of factory default. Client is no need to
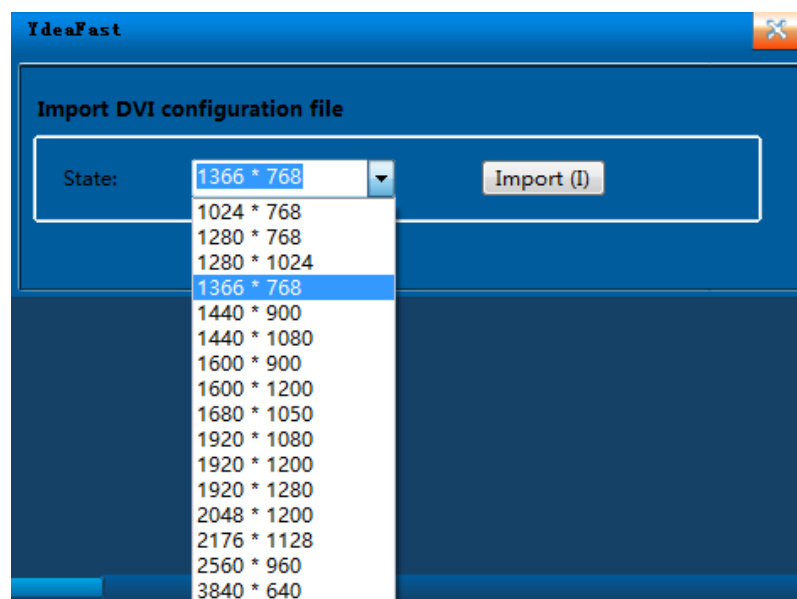
do other operation ;
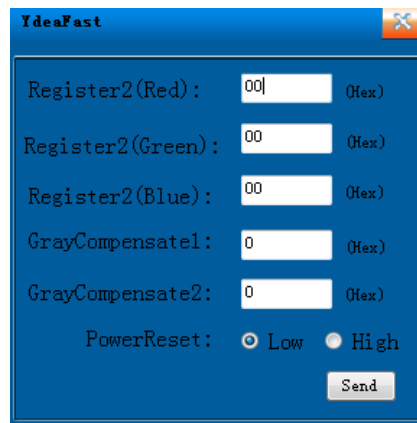
（ picture10 register setting ）

Logo import: can import logo at the small screen behind the big screen

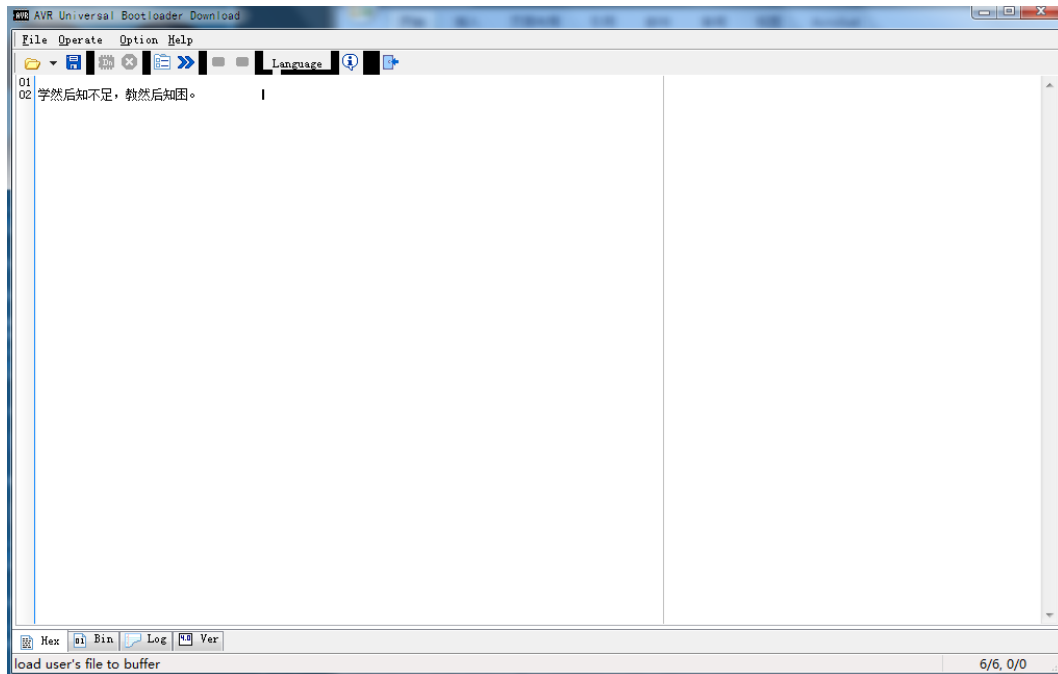**EDID:** can change the output resolution ratio from the sending box ;

There are many resolution ratios, which are the same with the ones at the

computer and the controller ;

（ Picture11 EDID settings ）

Avrubd Upgrade: can upgrade the SCM version of the sending card.

Please refer to the SCM UPGRADE COURSE for details；

(picture 12 Avrubd upgrade)

Feature parameter: adjust red, green and blue sequence (used on dot lighting);

Scanning spot tool: used on dot light source scanning.(about details please check the scanning spot manual);

3.Test：

There are test tools in the menu, which can do different basic test for the screen. There are functions of automatic grey, gradient grey, checking position, single grey, scanning line etc. Please do the test according to your need;
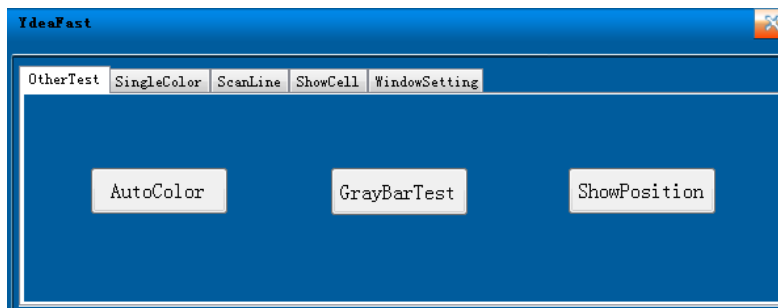
（Picture 13 test）

4.Settings

Corresponding settings: can change to be Internet access or serial port

correspondence；

Remarks:

1.serial port corresponding is used between computer and C5

system. Via serial port connection between computer and

C5, realize the correspondence between computer and C5

system；

2.Internet access: internet access correspondence is for and between

computer and MDEA. Computer and MDEA are in

the same Ethernet, which can realize the

correspondence between computer and MDEA；
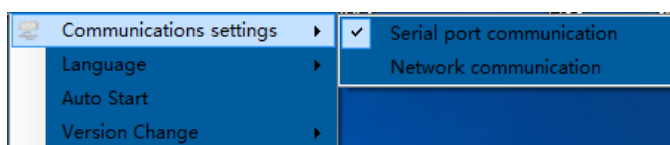
（Picture 14 communication setting ）

Language: According to your need, choose Chinese (simplified or

complex font) or English；
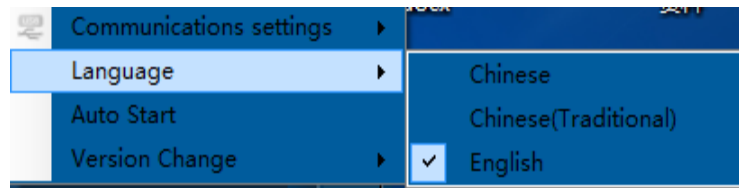
（Picture 15 Language）

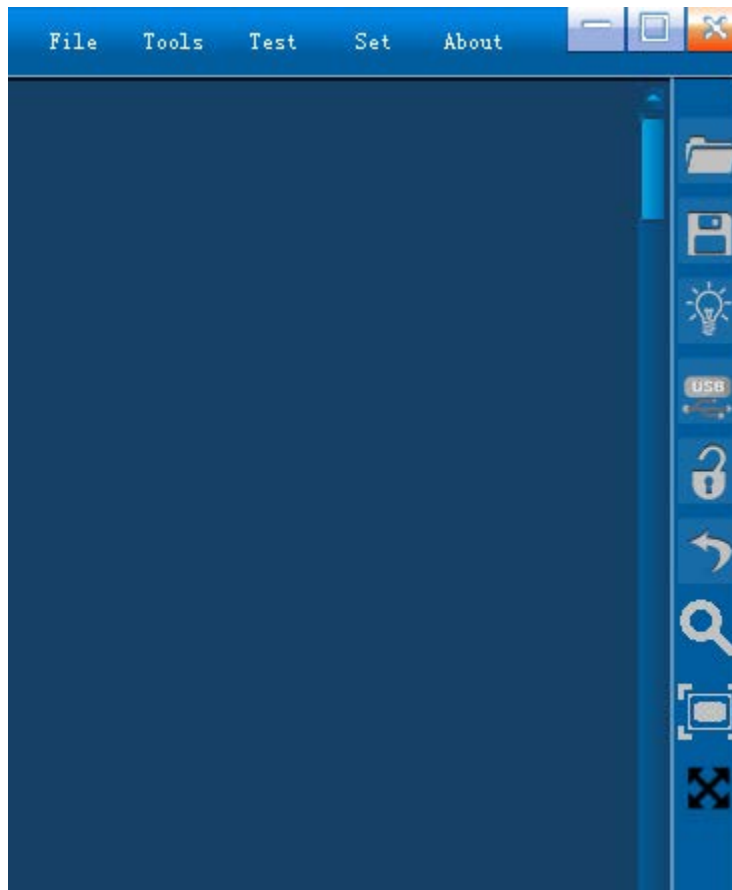**Start-up with power on:** Set to be start-up with power on or not.

5.About

Click the menu to check the version, which can be convenient for client

to communicate with the engineers of the screen manufacturer.

（Picture 16 software version）

2)Short cut menu

（ picture 17 shortcut menu ）

At the right side of the main interface, there are several shortcut buttons,

and the functions are shown as below:

: Open the screen connection file saved before

: Save the current screen connection parameter into a file for future

use.

: Click the button to adjust the brightness, current gain and Chroma.

Remarks:

1. In the default situation, the current gain is hidden. Need the code

of "ydea" to show it out.

2.Upper computer software set max default value of the current gain

to be 172, the hidden code is "0000".

 : Click this button to have fast serial port test.

 : Click this icon to turn on and off the screen. If all the setting

parameter are right but the screen is black, then need to click this

button to check whether the screen is on the off status.

Remarks: 1. This shortcut button is the signal for on and off of the

screen.

 : When make man-made or automatic connection, click this icon to

cancel connection.

 : Check the current control system version

Remarks:1. the shortcut button can check the current system version,

including the controller version and the receiving card

version.

: When magnify or shrink to view the window with "CTRL+mouse

wheel", click this icon go back the initial window size.

C5C system software operation

Screen connection

1) Main port selection

（picture 18 main controller port）

Remarks: 1. Internet port select: P1、P2、P3、P4 separately represent controller(sending card) four ports(P1-port 1, P2-port2, …). According to your need, selecting the corresponding port, add settings and connecting mode, then click sending.

2. Controller single port initial loading pixel is 512*1200. Width can be enlarged by adding 128 pixels as a unit. For example , add 128 pixels horizontally, then the single load pixel is 640*960. Total pixels of the single port by pixels on horizontal direction is the height: 512*1200/640 = 960；

3.Specific control port loading mode please refer to《C5 Introduction about patten loading of controller port》；

2) Cabinet adding:

Click the button beside the product type to enter into subsidiary
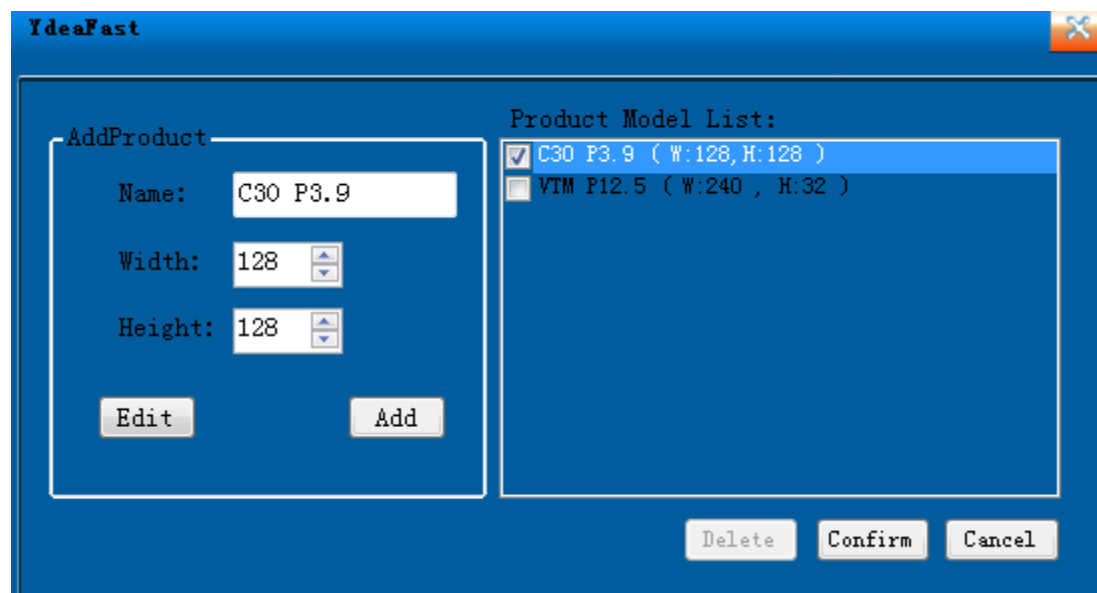
interface.
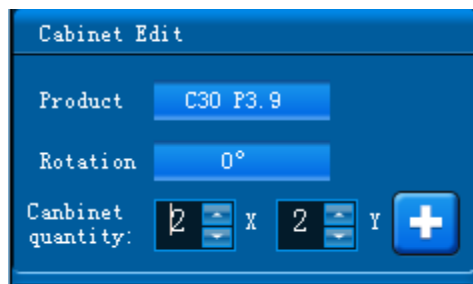
（picture 19 cabinet adding）

Product adding

Name: convenient for distinguish when setting parameters ；

Width: pixels on the wide side of the cabinet ；

Height: pixels on the direction of height ；

Add:　set the parameters and click add, it will be saved at the product
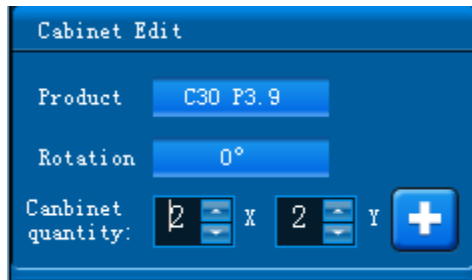
　　type list at the right side ；

（picture 20 product adding）

Product list

Click to tick the product , whose parameter is advanced set. Then

click confirm. At the same time, you can also click delete, to clear the products you don't want ;

（ picture 21 cabinet adding ）

Rotation feature: rotation angle: 0°,90°,180°,270° ;

Cabinet quantity: X represents quantity horizontally; Y represents quantity vertically. User can add windows, which can be placed randomly to realize regular or irregular display just like the one show as below:
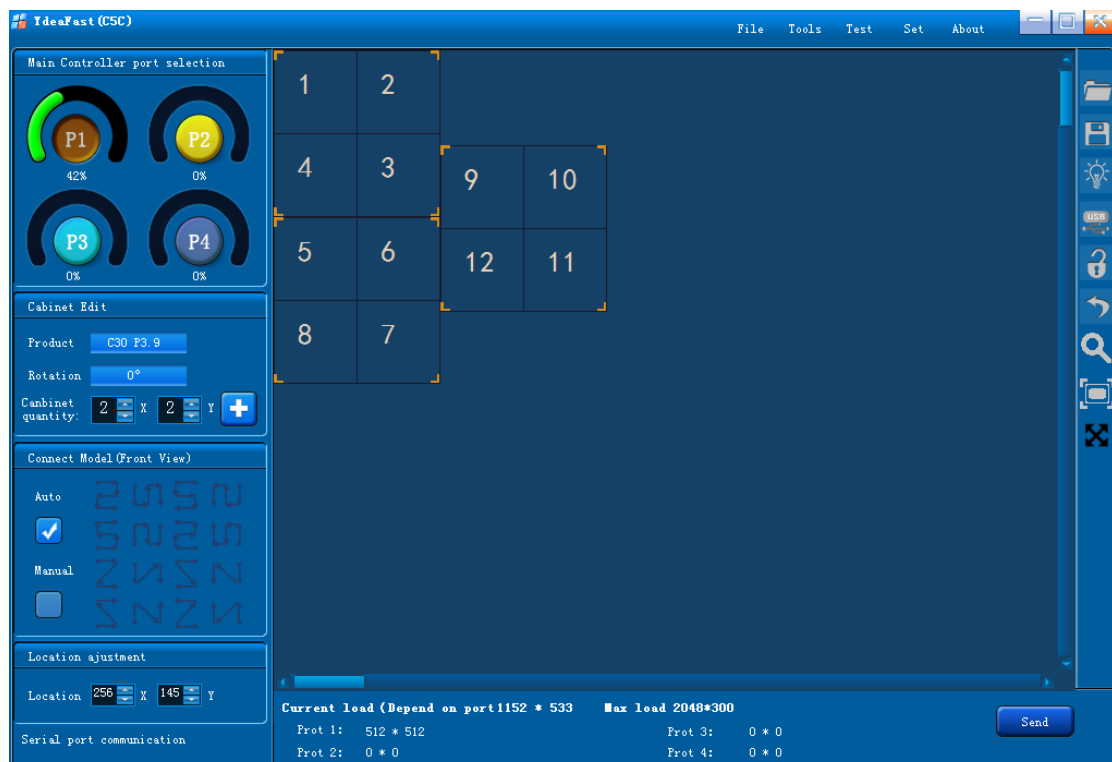
（ Picture 22 Window settings ）

**3)Wire connection mode (facing the screen) :**

(picture 23 wire connection mode)

Wire connection mode means the wire take-up way at the back of the screen. There are manual and automatic selection. When choosing automatic one, there are 16 ways to be selected; when choose manual one, you can click left mouse button to arrange the cable, which can realize the irregular wire arrangement. Any place without wire has to keep vacant ;

4)Position accurate adjustment :

Input X and Y position to modify the initial position of the window accurately.
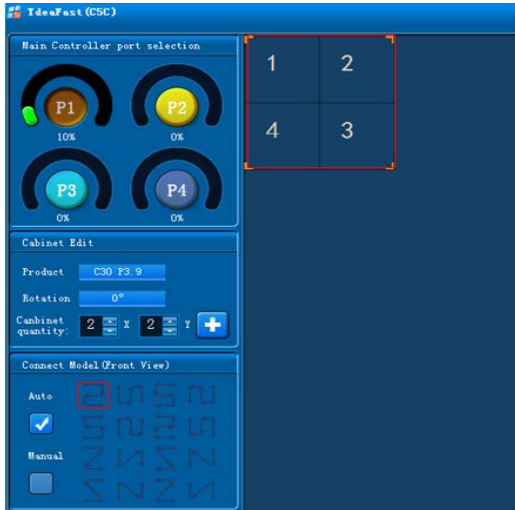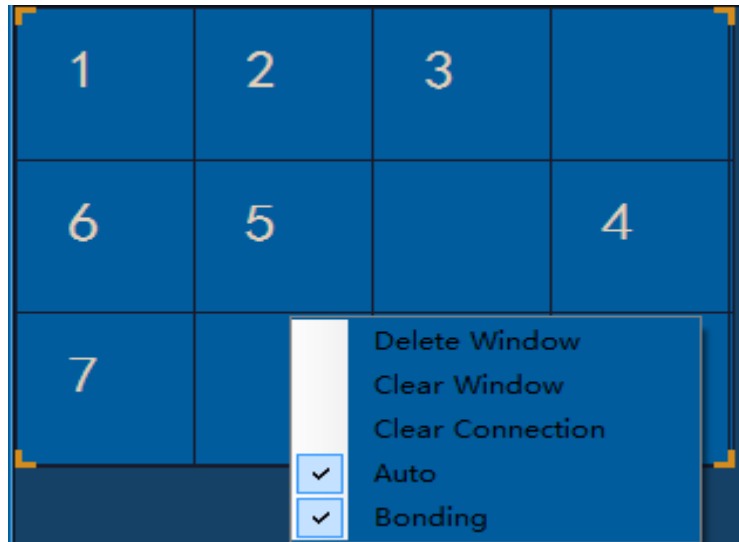
（Picture 24 wire connection window ）　　　(picture25 wire connection window)

When finish setting, clicking the window, which is set up already. Then click the right mouse button will get the setting as below:

Clear window: can clear all the windows set on any port of the controller.

Clear wires:　　can clear all the wires set on any port of the controller.

（ Picture 26 wire connection window ）

5)Setting on the rest ports

When one port of the controller finishes setting, click other ports at this interface to set according to the operation step mention above.

Remark : 1.If the loading pixels are beyond the allowed quantity, the port shall turn red to show mistake; if it works normally, the port should be the color shown as below. So it can adjust whether the controller port has been beyond the mark according to the color of the icon.

2.As stipulated by settings of software, the loading pixels of the latter Internet access must be less than or the same as the prior Internet access. Or it will be overloaded. That means the P1 ports can load the most pixels.
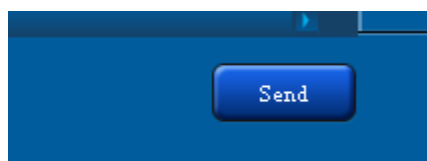
3.Due to the random setting of the pixel loading at single port of the controller, we had better put more pixels on the port 1.

（ Picture27 main controller window)

6)Send parameter

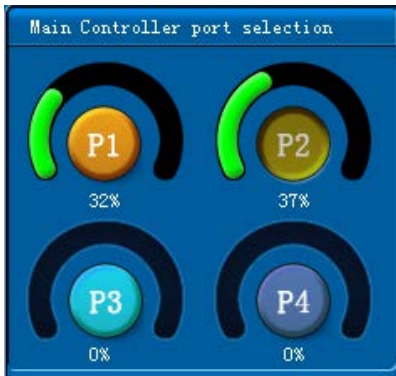Finish setting, clicking sending at the bottom right corner

（picture 28 sending)

C5M system software operation

Screen connection

### （1）Main controller port selection：

（picture 29 main controller port）

Remarks： 1.Internet access selection: P1、P2、P3、P4 separately represents controller(sending card) 4 ports(P1- Port 1, P2-Port 2, P3-Port 3, P4-Port4). Choose corresponding port to add setting. Click sending when finish wire connection.

2.Controller single port initial loading pixel is 512*1200. Width can be enlarged by adding 128 pixels as a unit. For example , add 128 pixels horizontally, then the single load pixel is 640*960. Total pixels of the single port by pixels on horizontal direction is the height: 512*1200/640 = 960；
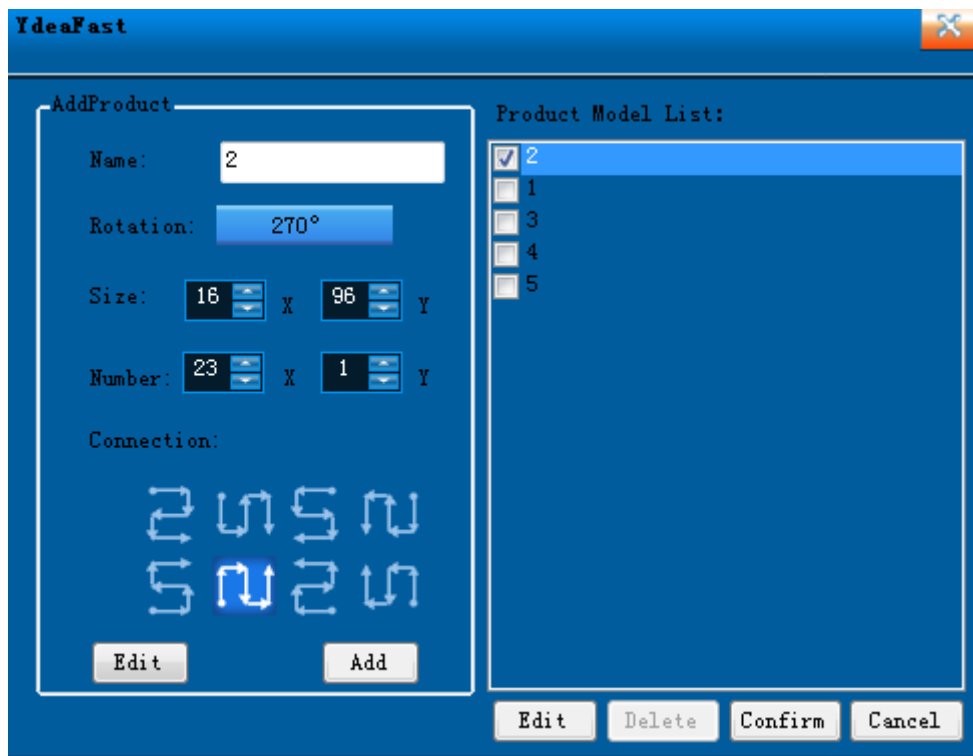
3.Specific control port loading mode please refer to《C5 Introduction about patten loading of controller port》；

（2）Port adding

click "Port mode" to enter subsidiary interface
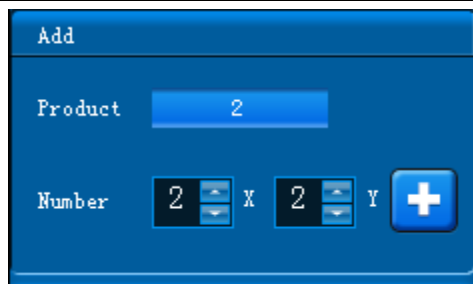
（picture30 port adding）

（picture 31 mode adding）

Name: set the name according your requirement.

Rotation: 0 °,90 °,180 °,270 ° four direction rotation, which is

anticlockwise;

Remark: this function need receiving card procedure support.

size: single screen's width（X）and height (Y)

Remark: size here means: single Mico receiving card's loading pixels

Quantity: horizontal screen quantity (X) and vertical screen quantity (Y).

Wire connection mode: set the inner wire take-up way of the port. There are 8 kinds of wire connection modes. If the wire connection mode is irregular, click <edit>to enter complicated mode setting.

Remarks:

1.In this option, according to the screen size and the quantity, system will automatically select relevant distributor mode. Support modes of 32*1200、 64*960 、128*480 、256*240 、512*120 、1024*60. That means, the distributors will be automatically matched with the corresponding mode of the same loading pixels.

2.If rotation needed ， first need to fill in the name, size of cabinet (default direction depends on the size of the screen), quantity (after rotation, the actual loading quantity at X direction and the quantity of Y direction). Selecting wire connection mode, and rotation angle, then click add, the size of the cabinet will be automatically changed according to the advanced chosen rotation angle.

For example : the screen of defaulted angle, size is 96*16. The power is at the right. If vertical placing is need, the power box should be placed at the top, with 5 panels installed. Then fill in the name and the single module size is X96, Y16, quantity of X5, Y1. Select the wire connection mode, and the rotation angle is 270°.
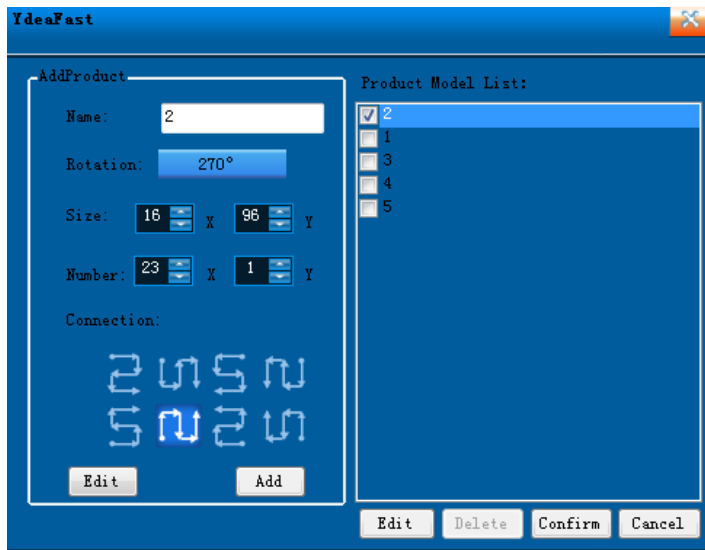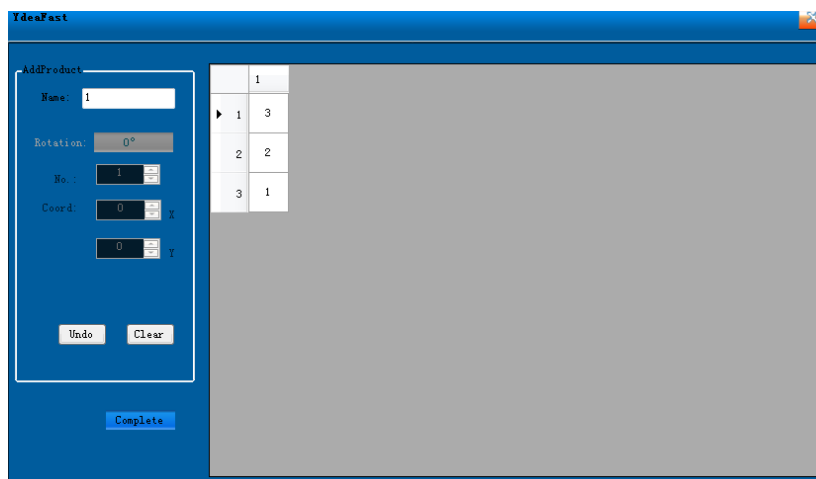
（ picture 32 Mode adding ）

Finally click adding, then the single screen will change to be X16, Y96. But the quantity will keep the same. That means, rotation angle will only select the size of the single screen, other than rotation quantity.
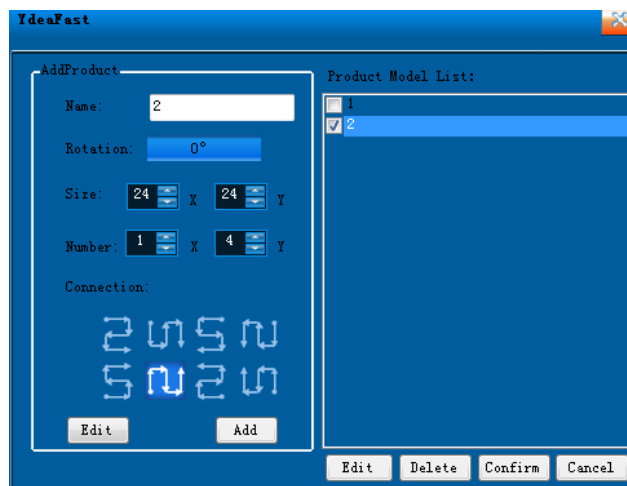
（ picture33 mode adding ）

Complicated mode

(picture 34 port mode edit)

Click <edit>to enter complicated mode setting

Name: set the name to make distinction；

Rotation: four directions rotation. Can realize single cabinet
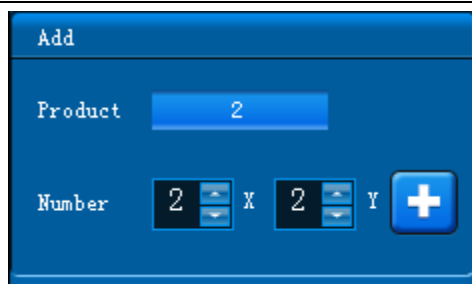
rotation；

Sequence number: mapping the sequence at the right of window, that

is receiving card physical address with default value of 1.

Coordinate: can change the original initial coordinate to show

different position.

Cancel and clear: it is convenient to modify signal wire take-up

Way；

Finish: finish setting and click confirm.

Port quantity

（picture 35 port setting）

Set the quantity of port: one window represents one output of distributor. If there are two or more than two distributors cascading together, and more than 8 windows in one port of controller, it will step automatically to next distributor. After setting quantity, click" +" , then click the left mouse button to add windows at the right of the vacant area.

Remarks：1.the port quantity refers to the arrange of the output of distributor.

**2.The output of distributor can be arranged randomly.**

Position accurate adjustment

Windows can be moved randomly within the pixels of the loading. Vacant area is like the screen of computer. Via the accurate adjustment of the position at the bottom left corner to set the original coordinate.

Attention：

1.Via adding single port to realize modifying every distributor output original coordinate separately. Shown as below:1~8 represent first distributor' s 8 outputs. 9~16 represent second distributor' s 8

outputs. These two distributors are cascaded, which are loaded by main controller port 1.
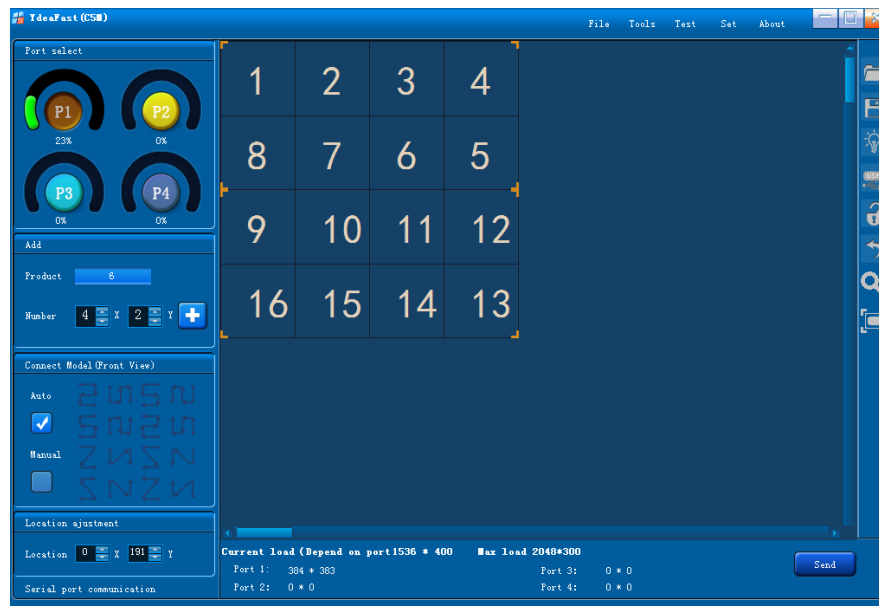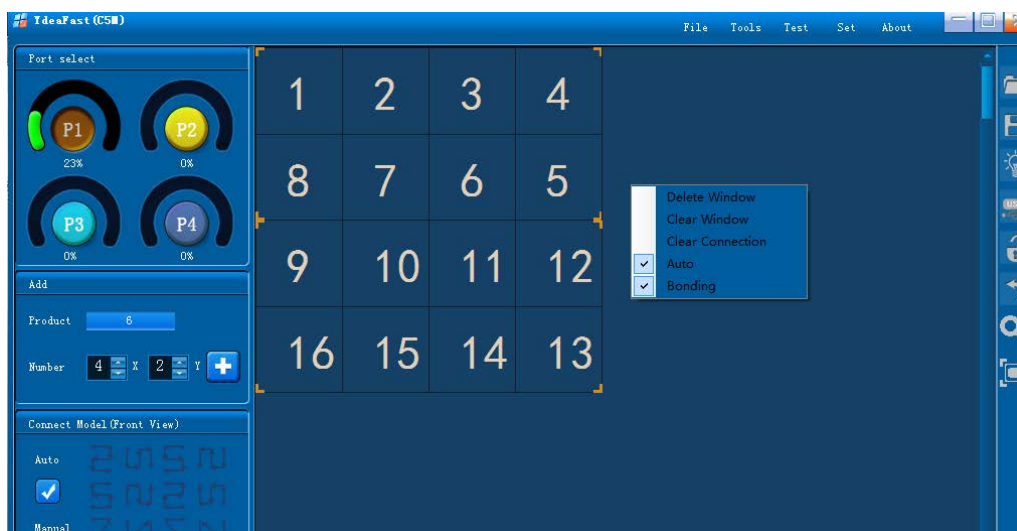

（picture36 wire connection window）

（3）Wire connection mode(facing the screen) :
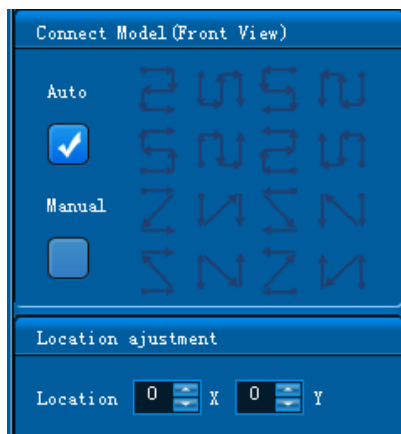
（picture37 wire connection mode）

Wire connection mode means the wire take-up way at the back of the screen. There are manual and automatic selection. When choosing automatic one, there are 8 ways to be selected; when choose manual one, you can click on the window to arrange the cable, which can realize the

irregular wire arrangement. Any place without wire has to keep vacant.
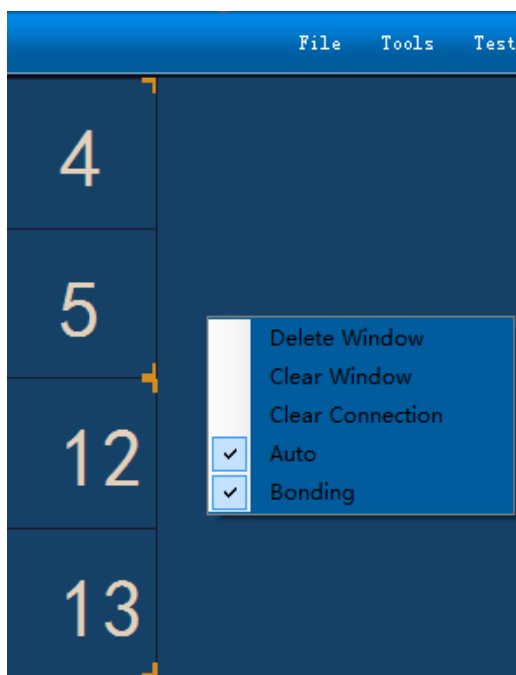

（ picture 38 wire connection window ）

Select the windows, which have been set. Then click the right mouse button to get the setting as below:

Delete window: can clear the chosen windows

Clear window: can clear all the windows on the port of the main controller

Clear wire connection: can clear all the wires at the port of the controller

Gluing : when the adding window is near the existed window, software will glue them automatically. When cancel the gluing, the adding windows can be placed randomly.
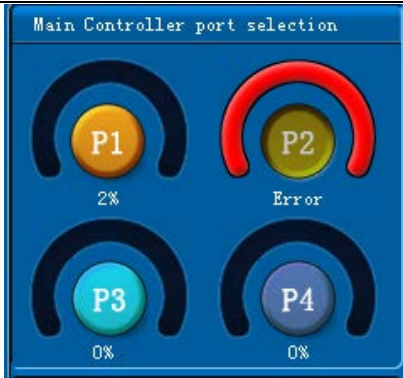
(picture 39 wire connecting window)

(4) Rest ports setting

4.1 When one port of the controller finishes setting, click other ports at this interface to set according to the operation step mention above.

4.2 If the loading pixels of main controller are beyond the allowed quantity, the port shall turn red to show mistake; if it works normally, the port shall be the color shown as below. So it can adjust whether the controller port has been beyond the mark according to the color of the icon.

Attention: as stipulated by settings of software. The loading pixels of the latter Internet access must be less than or the same as the prior Internet access. Or it will be overloaded. That means the P1 ports can load the most pixels.

（picture 40 main controller window）

（5）Sending parameter

After setting, click sending at the bottom right corner is ok.

(picture41 wire connection)

C5 system Q&A introduction

Question	Adjustment and solution
DVI is on, but WORK indicator is not blinking	1. controller does not detect DVI signal, work will not be blinking 2. controller procedure failed to upgrade(via controller test mode to adjust whether the procedure is failed to upgrade,)
DVI is off	Controller does not detect DVI signal; check: 1.Whether DVI cable is working normally 2.whether DVI of computer and controller

	are working normally.
LCD is off, but screen is on. Fail to send parameter	SCM procedure is not burnt, so the LCD is off . The SCM needs to be upgraded.
Computer can not send parameter, with "!" appeared on serial port.	Check the serial port (whether CP2014 drive is installed correctly or not) in the device administrator of the computer. Appear"!", means is not installed correctly, which needs to reinstall the drive.
After connected to controller, computer is black, but screen can work normally.	Graphics card of the computer takes the controller as screen, so the computer is black. Solution: with external screen, reset the sequence of main screen and the spare screen
there is matter with output of the controller.	1.adjust DVI signal first 2. Exclude the output port reticle
Screen can display, but not spot to spot	Whether C5 system has set EDIDI parameter (keep the resolution of controller and graphics card the same)
Display position is normal, but color is not right, which is	1.First exclude computer DVI signal and DVI connection wire. 2.Control system grey level is sending correctly

distorting.	or not?
signal connection is normally, but screen is black	1.check whether computer and controller is copy mode. 2.make sure the screen is on in the upper computer software .

C5 system installation size