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Chapter1 Summary

HDPlayer Software we promoting for Full Color advertising display. It can remote display by long distance, play high definition video, picture and text etc. It is Asynchronous and Synchronous dual model system. The system include three main parts: Sending controller HD-A60X (HD-A601 or HD-A602 or HD-A603), Receiving card HD-R500 and software.

The core part it is sending controller HD-A60X, it is responsible for setting up parameter and sending program. It play program Asynchronous, also it can Synchronous on line play computer program.

Receiving card HD-R500 connected the display, it is responsible for receiving data from sending card and showing program on the display

1. Hardware structure

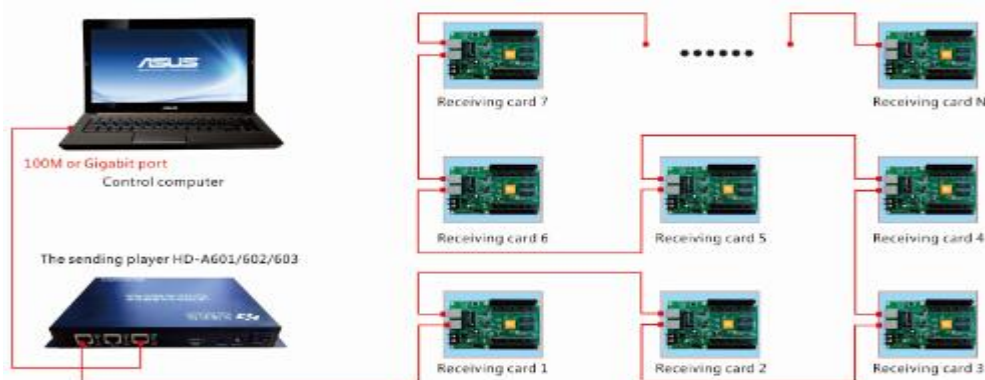
Part Name	Part No	Need or do not need
Sending card	HD-A601/602/603	Need (it need buy)
Receiving card	HD-R500	Need (it need buy)
Software	HDPlayer	Need (we offer for free)
Accessories of Adapter power	12V adapter power	Need (we offer for free)
Accessories of HUB	HUB40/75 etc	Need (it need buy)
Accessories of HDMI Lines	HDMI	If Synchronous use, it need buy

2. Controller working system

1) The sending controller HD-A60X series connected with Receiving card R500

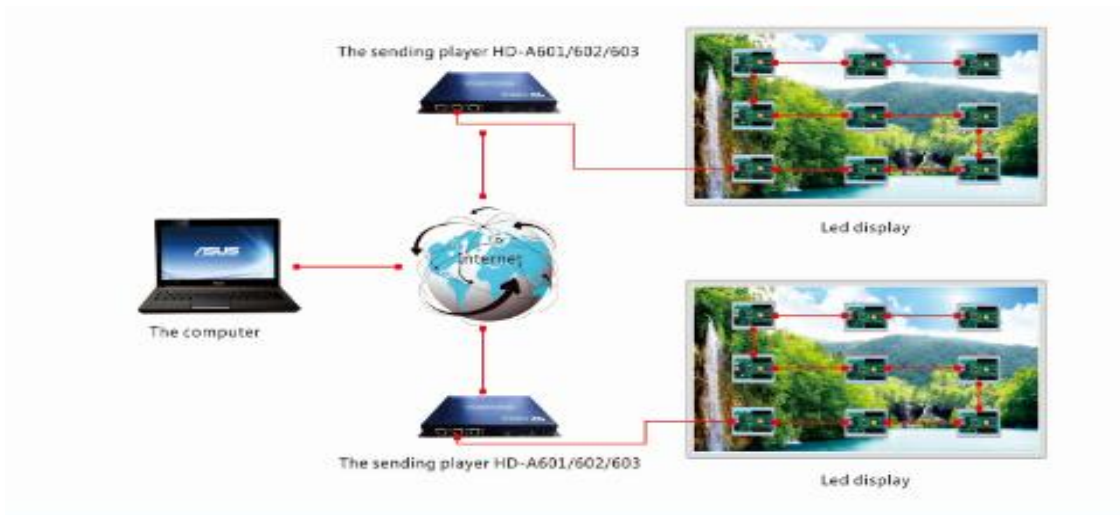
(Asynchronous or Synchronous using)

Note: The Network cable made by 568B



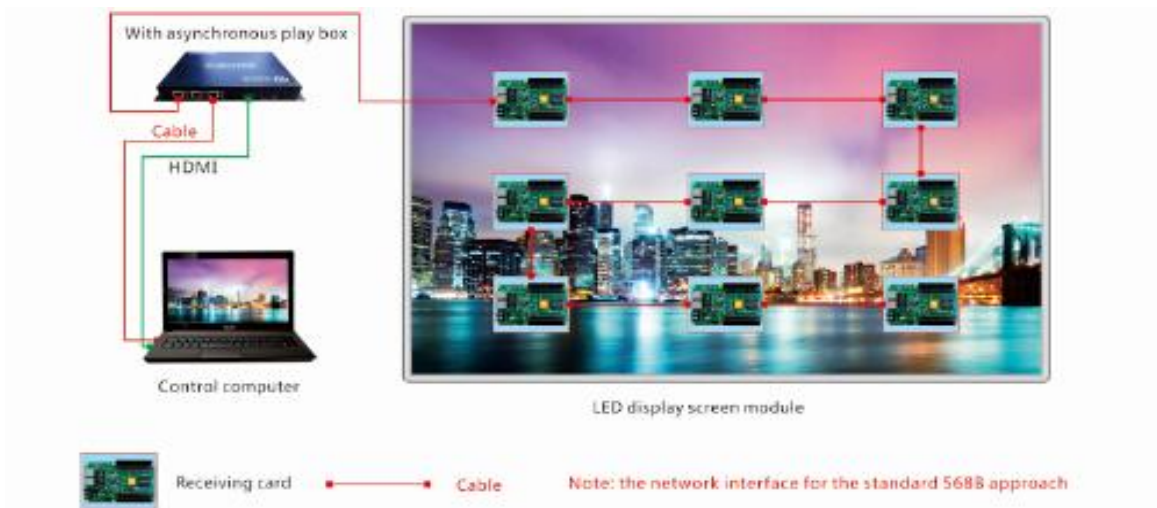
2) Cluster management and application (Asynchronous using)

Note: The Network cable made by 568B



3) Synchronous mode using .

Note: The Network cable made by 568B



3. The running environment

Software support Windows XP\Windows 7 32bit\Windows 7 64bit etc

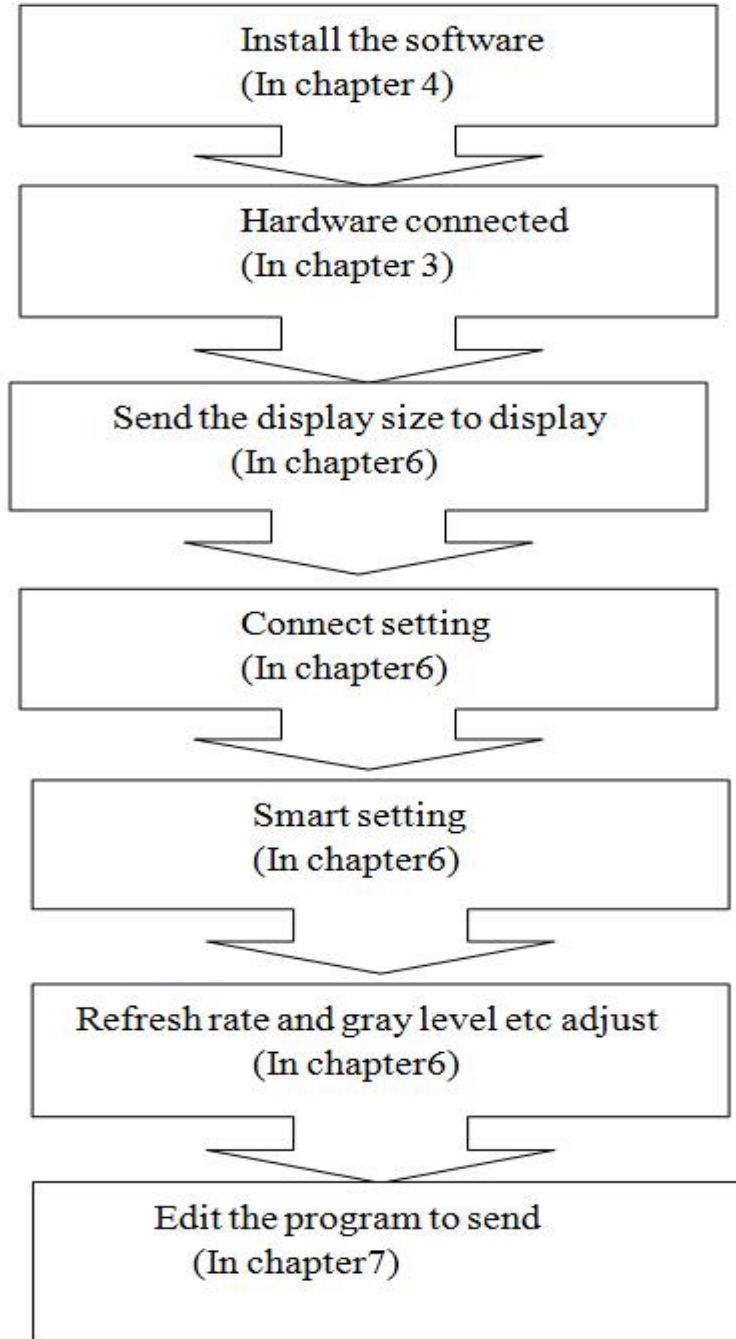
Suggest computer hardware setting like below:

- CPU : above 2.0GHz
- Memory : above1GB

User can adjust the computer setting according to environment (it according to led display total pixel、 program whether complicated、 video source whether high definition)

Chapter 2 Adjust the display procedure

When first time use Sending controller HD-A60X, it need use Network cable connect the display. When found the controller ID automatically, then set up the display parameter. Show as below



Chapter 3 Hardware connect

1. The port of sending controller HD-A60X series (For example: HD-A602)

The Front side



- ① OUT1: Output port1. Connected with Receiving card R500
- ② Output light: For working. The Green light always bright, the Red light flicker
- ③ OUT2: Output port2. Connected with Receiving card R500
- ④ Out2light: For working. The Green light always bright, the Red light flicker
- ⑤ IN: Input. Connected with computer
- ⑥ Input light: For working, the Green light always bright, the Red light flicker
- ⑦ HDMI: HDMI port. Connected with computer HDMI port or Digital CATV Receiver (Digital television) HDMI port or Video processor HDMI port
- ⑧ Audio: The sound output. it is Double track stereo audio output
- ⑨ DC: The power charger. It is 12V
- ⑩ ON/OFF: Power on/off electronic

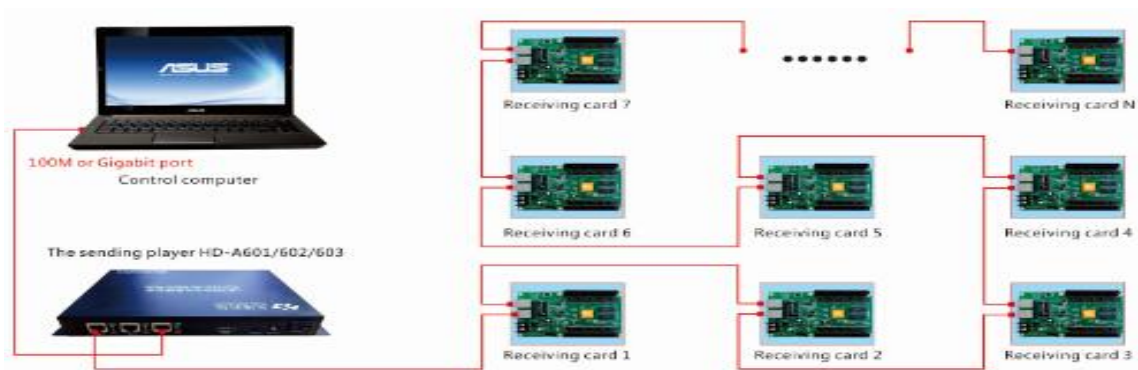
The back side



- ⑪ POWER: The power light. For working
The Green light always bright, the Red light Flicker
- ⑫ DISPLAY RUN: For working
The Green light always bright, the Red light Flicker
- ⑬ TEST : Test button. Click one time then into the testing status. Like white,red, Green,blue, parallel line, vertical line, diagonal line ,change program etc
- ⑭ RESET: Recover the factory setting
- ⑮ USB: Connected with u-disk or mobile hard disk to expand memory limitless
- ⑯ SYN 3G: Synchronous and 3G showing light. When insert HDMI, the SYNC light flicker
When insert 3G mobile card, the 3G light flicker

2. The sending controller HD-A60X series connected with Receiving card R500 (Asynchronous or Synchronous using)

Note: The Network cable made by 568B



3. The Receiving card HD-R500 connected

Using the HUB connected with HD-R500, like HUB40, HUB75, HUB08 etc



4. Network connected

◆ On controller A60Xseries , port of Link “IN”⑤ connected with the Network port of PC
Also Link “IN” can connect with Router, then via Router connected PC

◆ On controller A60X series, port of Link “OUT1 ”① or OUTPUT2③ connected with Receiving card

◆ Receiving card connected with Receiving card by568B Network cable

The 2 network port can be change of Receiving card

5. The power charger

◆ The power charger voltage it is 12V,when power on, the “POWER” ① is bright, “RUN” and “DISPLAY” ② is flicker.

◆ Receiving card HD-R500 the working voltage 4.5-5.5V, when power on, the “POWER” is bright, “RUN” and “DISPLAY” is flicker. The network port light of controller ‘ACT’ is flicker, the light “LINK” bright.

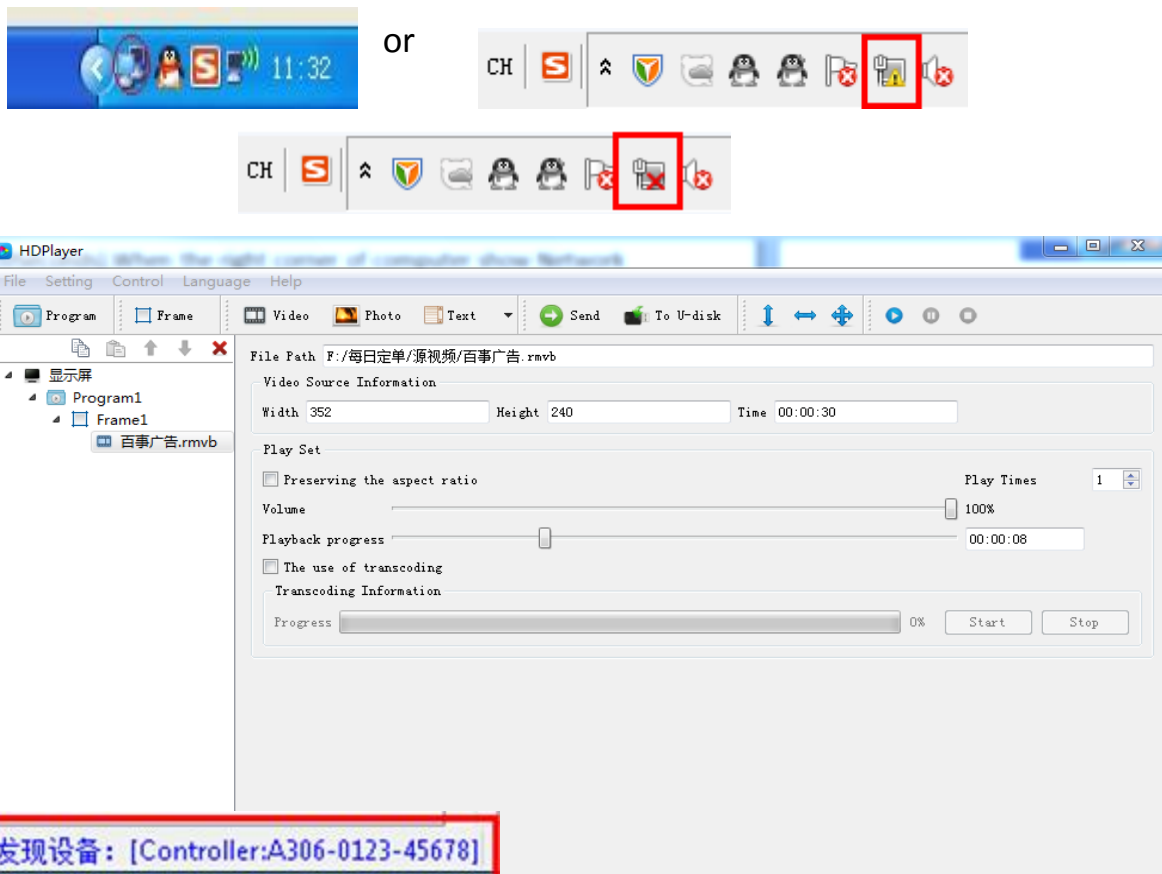
Chapter 4 Install and unload

1. Install the software of **HDPlayer** ,we have guiding when install
2. For unload software of **HDPlayer**, in PC, click Start-All procedure-unload **HDPlayer**

Chapter 5 Network setting

The sending controller HD-A60X series can connect computer directly, also can via Router connected computer.

When connected with computer, the OUTPUT LIGHT ②Or④ (The Green light always bright, the Red light flicker),-----then wait for few seconds (Windows XP more than 10Seconds, Window7 less than 10Seconds).-----When the right corner of computer show Network normal (see below), it means it have been connected of network, -----then open the software HDPlayer, it will find the controller ID automatically.

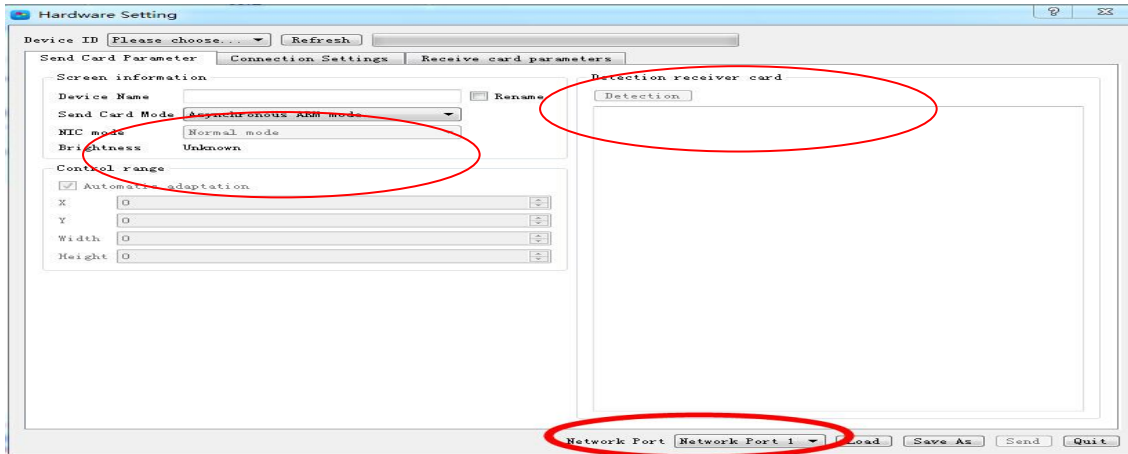


Chapter6 The Hardware setting

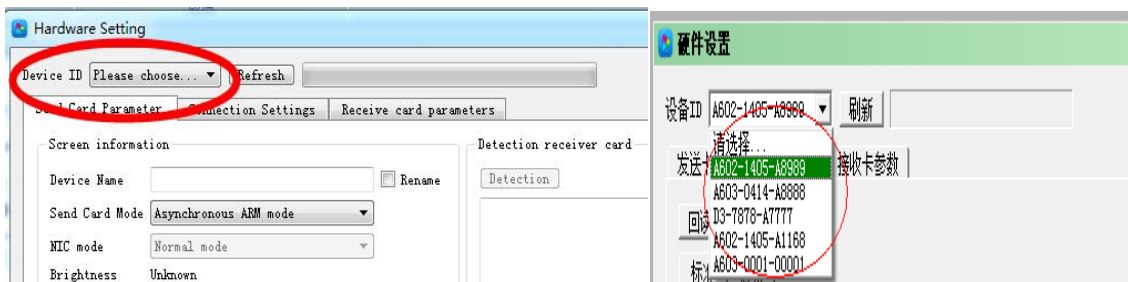
1. Send card parameter. Setting-Hardware setting-Send card parameter

(Asynchronous ARM Mode and HDMI Synchronous Mode)

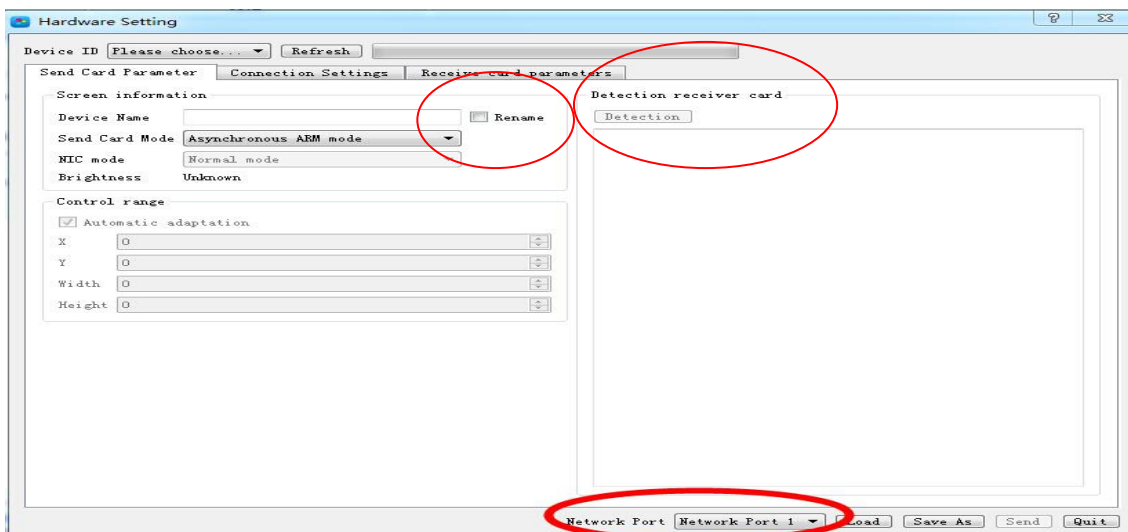
1) Click Detection to find the receiving card of HD-R500



2) Select the controller ID



3) Select the Network (Network port 1 or Network port2)



4) The send card of Two types

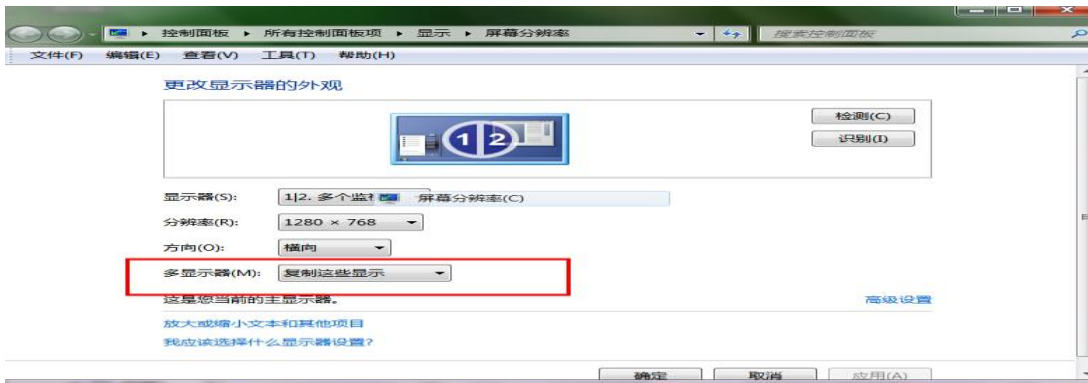
(Asynchronous ARM Mode and HDMI Synchronous Mode)

Note: Asynchronous ARM Mode

- ◆ If the current status HDMI Synchronous Mode, when select Asynchronous ARM mode, click “Send”, it can switch to Asynchronous ARM Mode
- ◆ Asynchronous offline showing program, after sent the program, it can power off the computer
- ◆ No need network cable, it can export the program by U-disk or Mobile hard disk, then insert to the controller, the program can be update

Note: HDMI Synchronous Mode

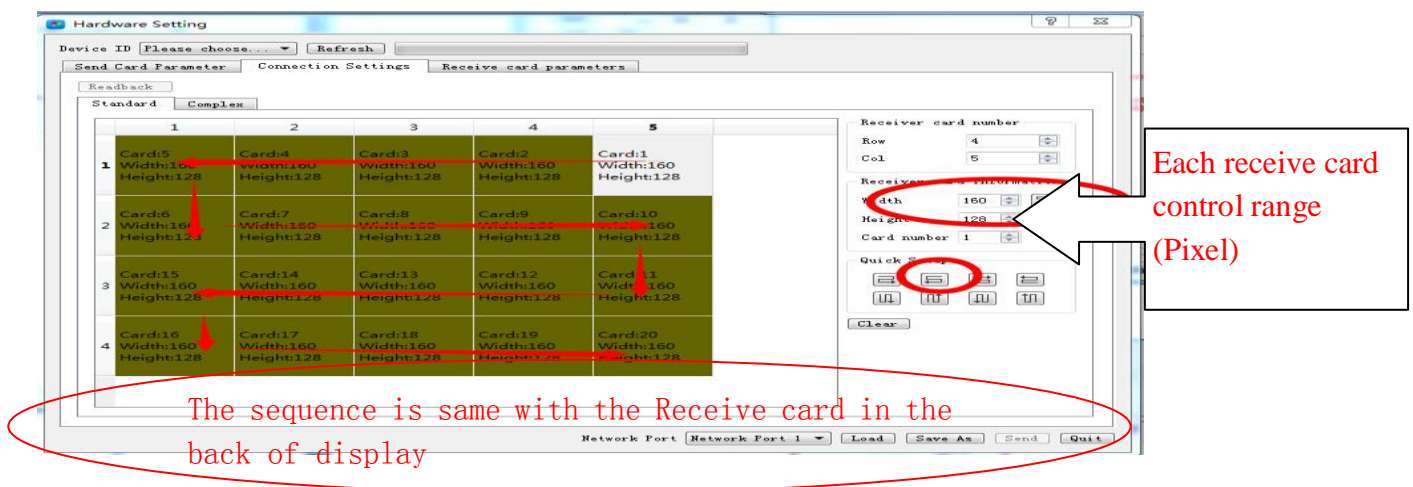
- ◆ If the current status Asynchronous ARM Mode, insert the HDMI lines ,the computer switch the status to Copy type automatically(see below), and the definition change to 1280*720,click “send “it can switch to HDMI Synchronous Mode, showing computer program synchronously



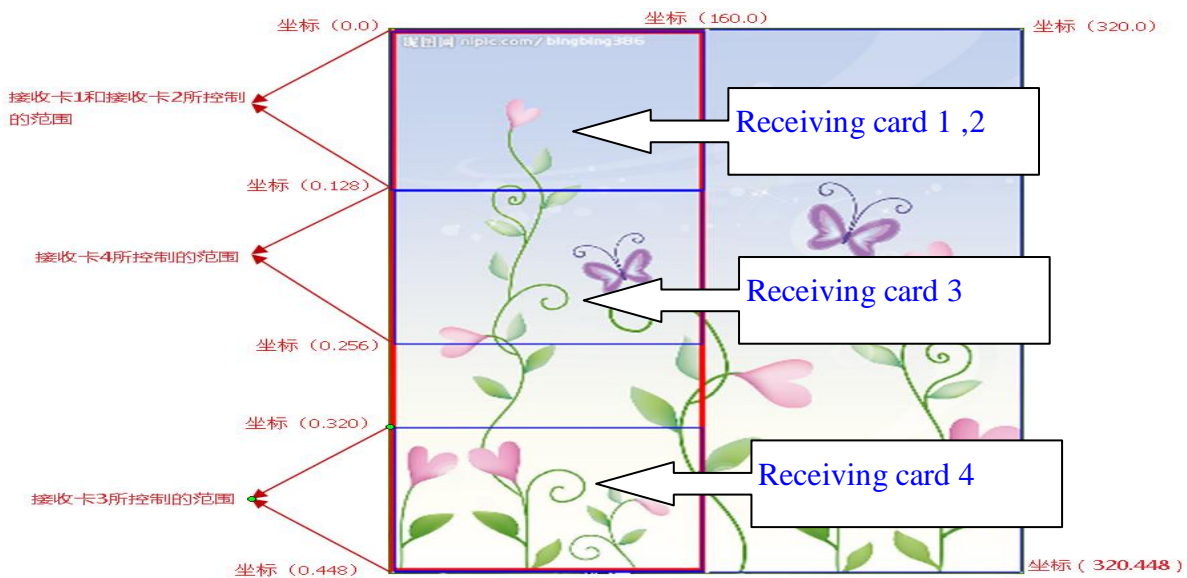
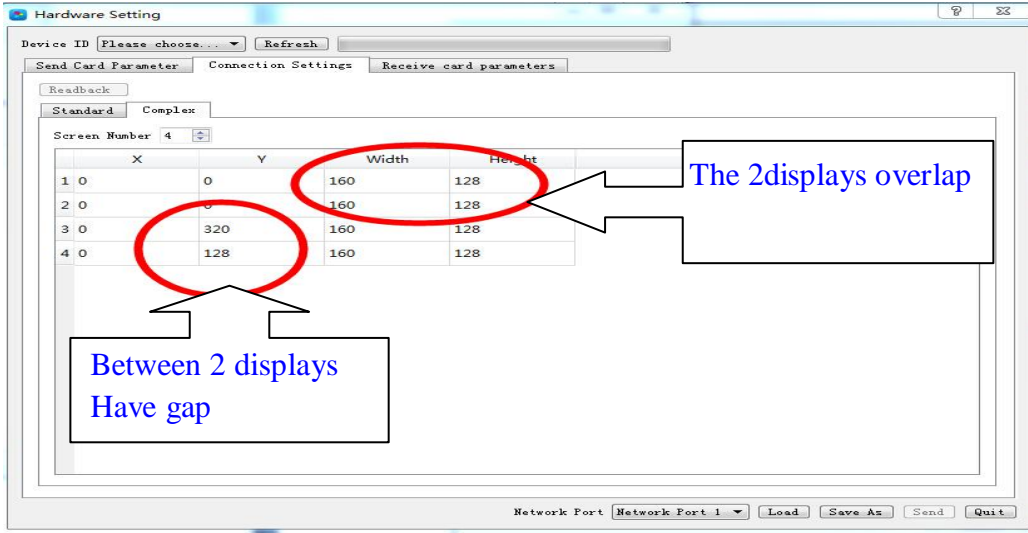
- ◆ If the current status Asynchronous ARM Mode, when select HDMI Synchronous Mode, click “Send”, then insert the HDMI lines ,it can switch to HDMI Synchronous status.

2. Connection setting. Setting-Hardware setting- Connection setting

1) If the display it is oblong or square, it can select Standard.



2) If the display it is Complex. For example, cross screen.



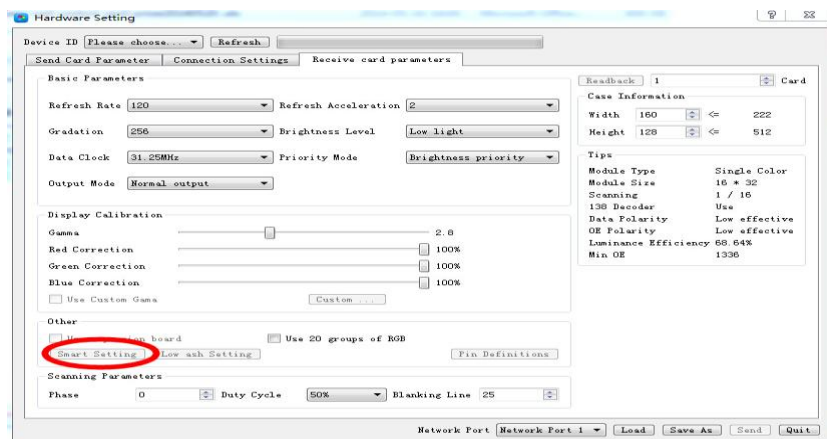
Note: If the controller have been saved the connection, can select "Readback"

3. Receive card parameter: Click Smart setting.

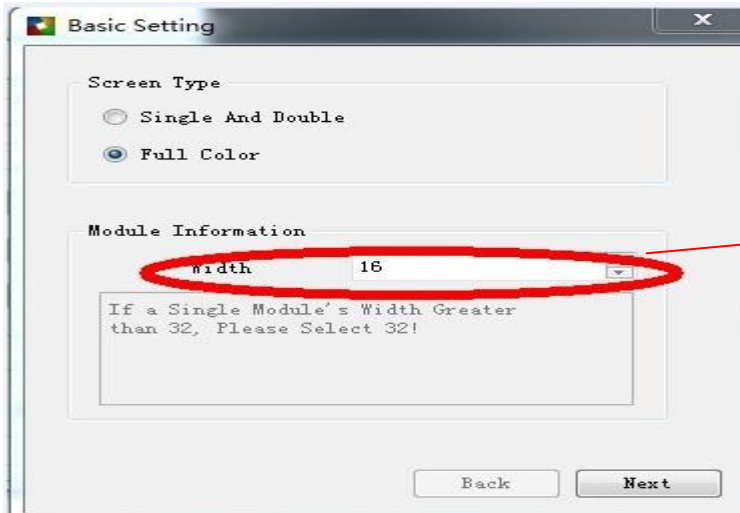
First time using this sending cardHD-A60X series, it need Smart setting at first.

The setting parameter can be "Saved as", then used in next time (have same display

type).see below

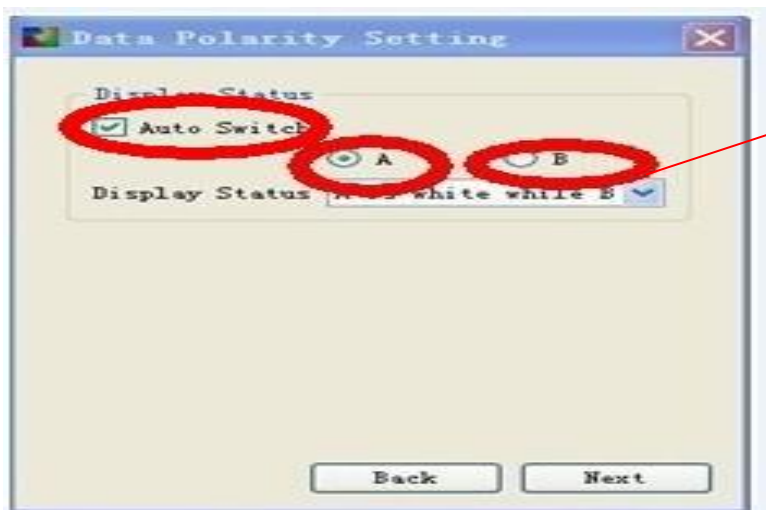


1). Click Smart setting, then into basic information.



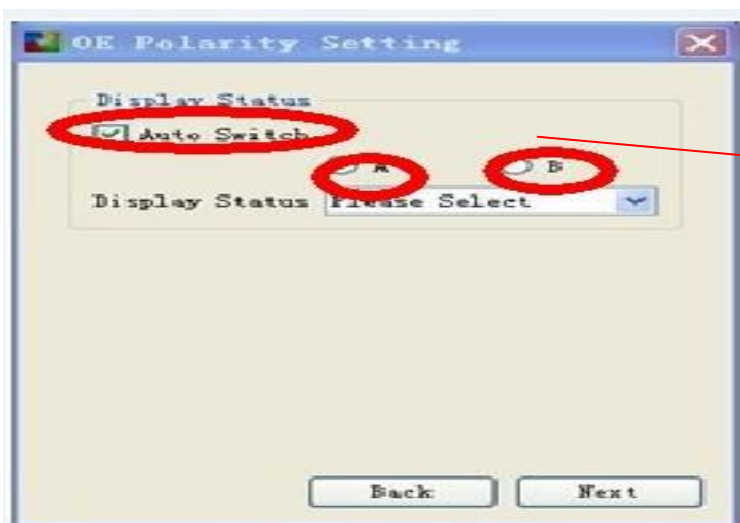
One led module pixel of width

2) Click Next, then into Data Polarity setting



Click A, what is the display status of display
 Click B, what is the display status of display
 Result: A is Black or B is black

3) Click Next , then into Data Polarity setting



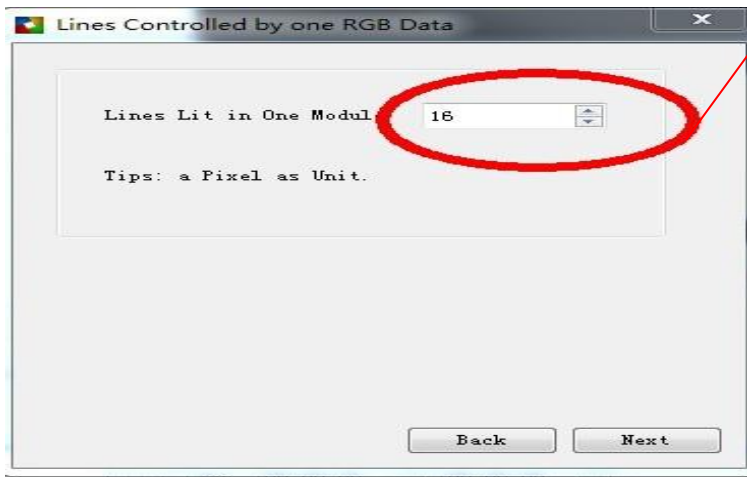
Click A, what is the display status of display
 Click B, what is the display status of display
 Result: A is Brighter than B
 Or B is Brighter than A

4) Click Next, then into Color channel setting.



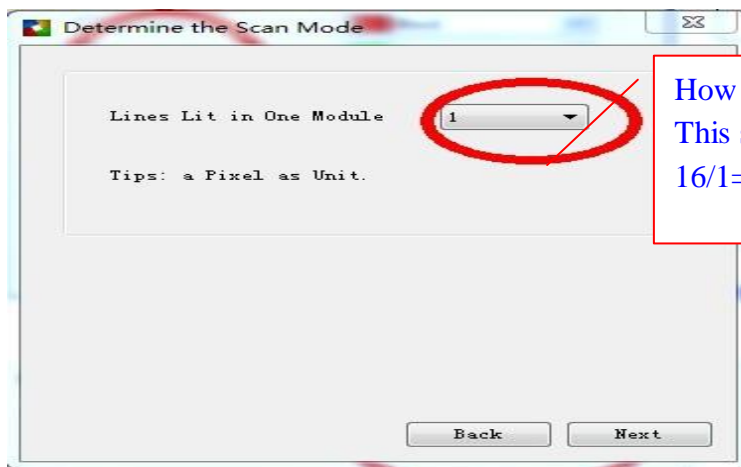
Click A, what is the display color
Click B what is the display color
Click C, what is the display color
Click D, what is the display color

5) Click Next, then into Line controlled by One RGB Data



How many lines lighting in display
This step for scan type

6) Click Next, then it into display scan types

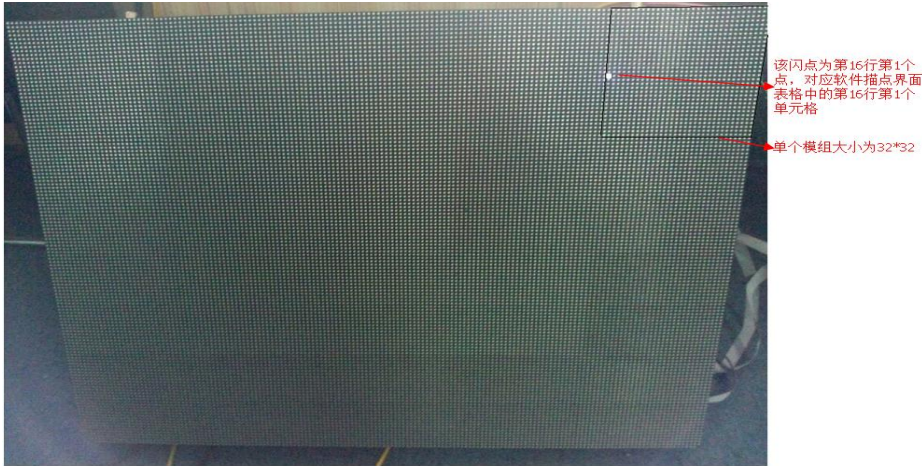


How many lines lighting in display
This step for scan type (the ways:
 $16/1=16$, so it is 16 scan)

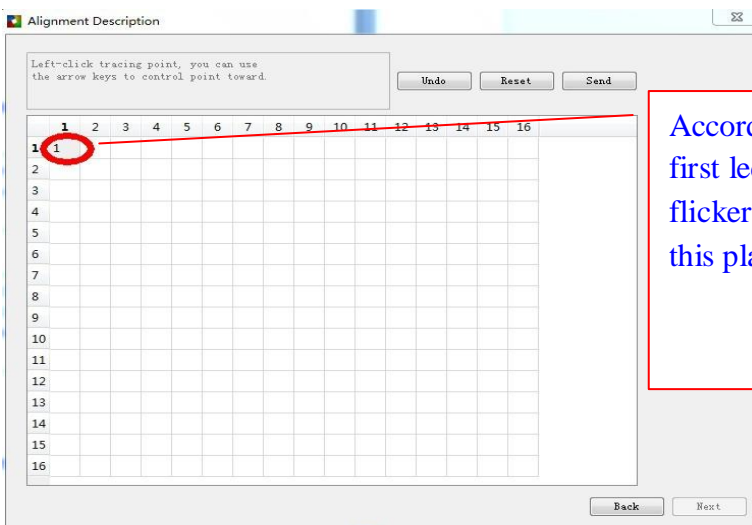
Like this led module from right corner of first module

(First flicker led from 16th lines of first light)

User can use key ← → to move

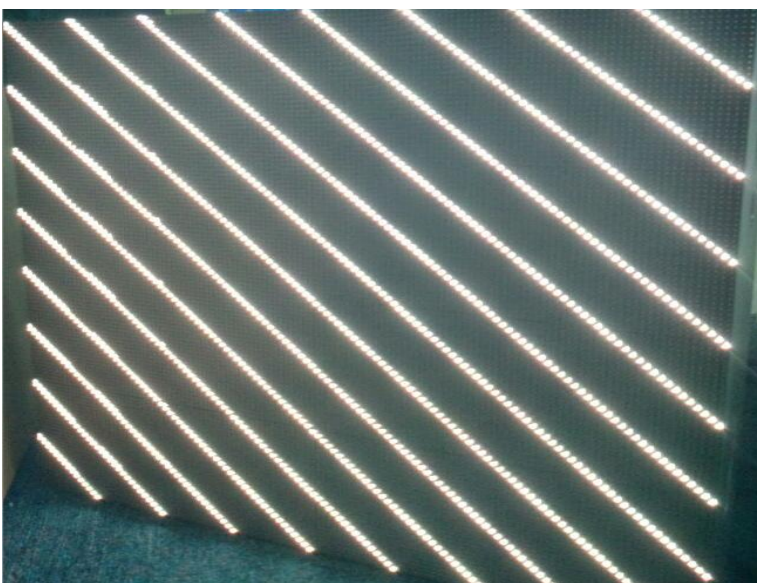


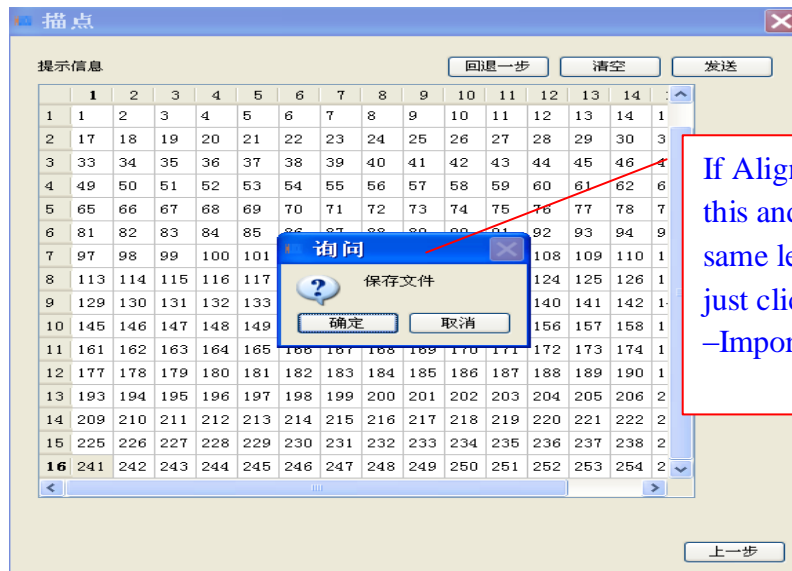
7) The last step, Into Alignment description



According to the Top Right corner of the first led display module, the bright light flicker (in the first led module), then click this place on the Alignment description

The last step display showing





If Alignment successfully, it show like this and saved file.(Next time if have same led display, do not need set again, just click Setting –Hardware setting –Import, importing this .doo file

4. Basic parameter

1) **Refresh rate:** The more highly refresh rate, the led display play more fluently. If lower Than 100MHZ, the showing photo shake clearly. The Refresh rate calculate by computer, no need write by hand.

1) **Refresh acceleration:** It according to Refresh rate and add it by proportional.

For example, the fresh rate 120, the acceleration it is 2; if change to 4,the fresh rate 240MHZ.

2) Gray Level

The Gray Level is used to represent the color richness. More higher more better. Gray level 256、512、1024、2048、4096、8192、16384、32768、65536 etc. Usually set 4096 or 8092

The gray level is inversely proportional to the longest width of led display

The gray level is proportional to luminance efficiency

3) **Brightness level :** Usually Low light, normal and high light.

5) **Frequency:** It means the shift frequency of the scan program. Its range 3.125MHz-31.25MHz. it is better to set the frequency lower than 25MHz.Because most LED screen driver ICs is lower than 25MHz.

4) Priority Mode

◆Brightness Priority: Protecting the brightness lost less, then do refresh acceleration, usually used for outdoor display require high brightness.

◆Refresh Priority: In this mode, it will sacrifice about 20% brightness efficiency. It can update Frequency clearly. Usually used for indoor display.

◆Gray level Priority : If for lower brightness requirement, it can select this mode. Usually used for indoor led display.

5) Output mode

- ◆ Normal output: For ordinary HUB type.
- ◆ Two separate output: For sacrifice half control height to increase 1 times control width (Refresh rate and brightness no change)
- ◆ Four separate output: For sacrifice 3/4 control height to increase 4 times control width (Refresh rate and brightness no change)

Note: Two separate output and Four separate output can not use together with Extension board

6) Gamma: The Gamma represent the contrast degree between light and dark. The higher data the higher contrast. The range 1.0-6.0 and usually set 2.8

7) Display calibration: For color correction (Red,Green,Blue)

8) Use Expansion board: For sacrifice half control height to increase 1 times control width (Refresh rate and brightness no change)

9) Use 20 Groups of RGB: Just used for specified HUB, Like HUB75(20 Height)

10) 138 Decoder: According to led module, whether use 138 decoder.

11) Data Polarity: Two types of High effective and low effective .If in high effective, the LED light will be lighten up, and shut down with low effective

12) OE Polarity: The OE Polarity with same features as Data Polarity.

13) Phase: The relative time relationship between moving clock and moving data.

If showing photo have flicker or dislocation, adjust this parameter it can eliminate

14) Duty cycle: The moving clock of duty cycle. If change this data, it can increase the scanning moving clock, usually set 50%

15) Blank lines: When refresh rate high, it could result showing afterglow, adjust this data it can decrease affect, but can not eliminate. It used for scan modules, for static module it is useless

16) Luminance efficiency: The higher and the more brighter, usually set 85%

The Chapter 7 Edit program

The software interface have 2 parts: Play window and edit program window

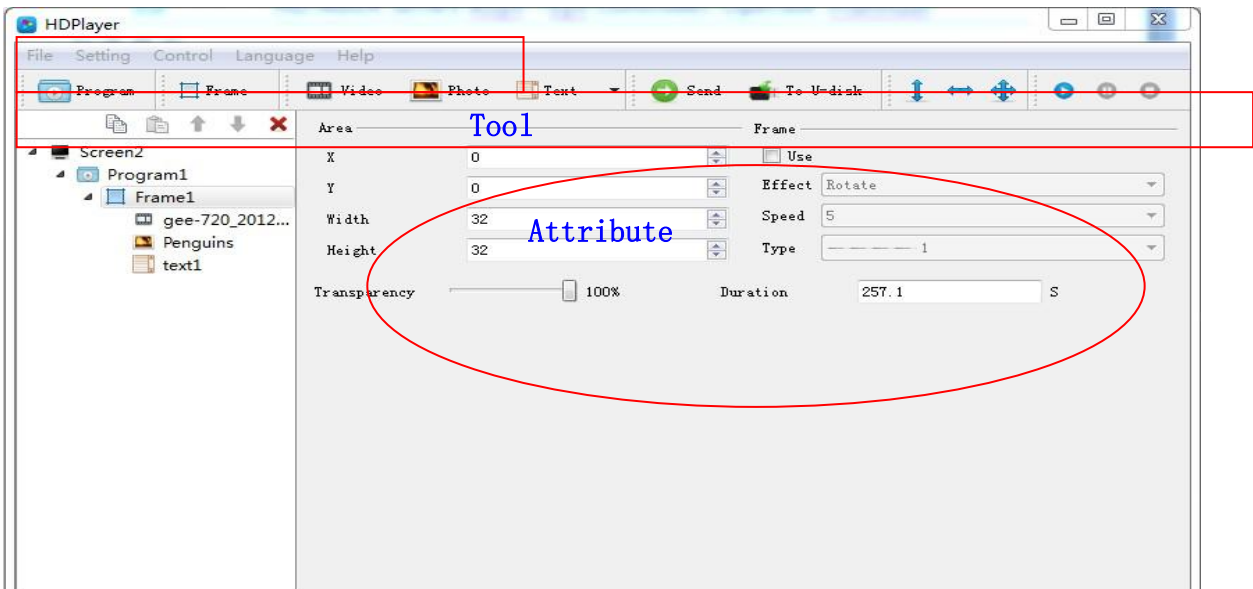
For Program window: Click File-New(screen)-Program-Frame-add video, photo etc

1. Software interface.

- 1) Play window (the program showing in the display) : User show programvideo, Pictures, Text, etc in the display
- 2) Edit program window: Menu ,Tool ,Structure and attribute



Edit program window



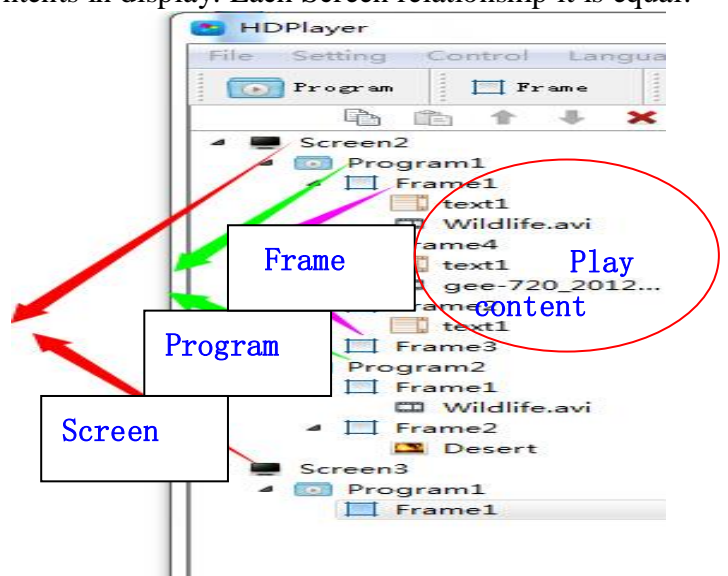
2. Screen structure

◆Screen: In first sequence. Decide the play contents in display. Each Screen relationship it is equal. In screen, it can add more Programs

◆Program: In second sequence, and playing By sequence

◆Frame: In Third sequence, and it can add more frame in one program

◆Play content: Last sequence. It can add Video, Picture,Text,Etc



3. Set up New screen

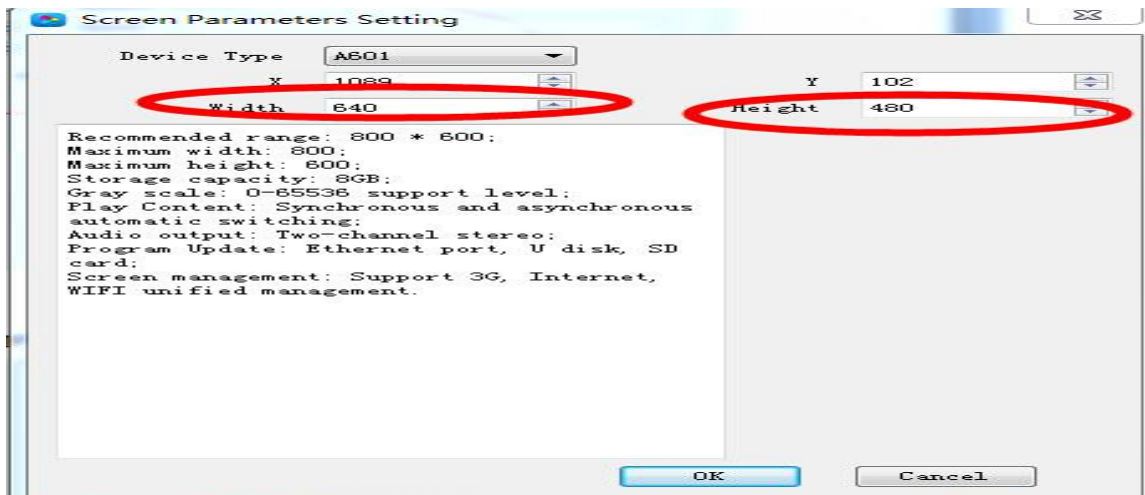
Ways: Click File-New or use Ctrl+N

It can add more Screens in the structure;

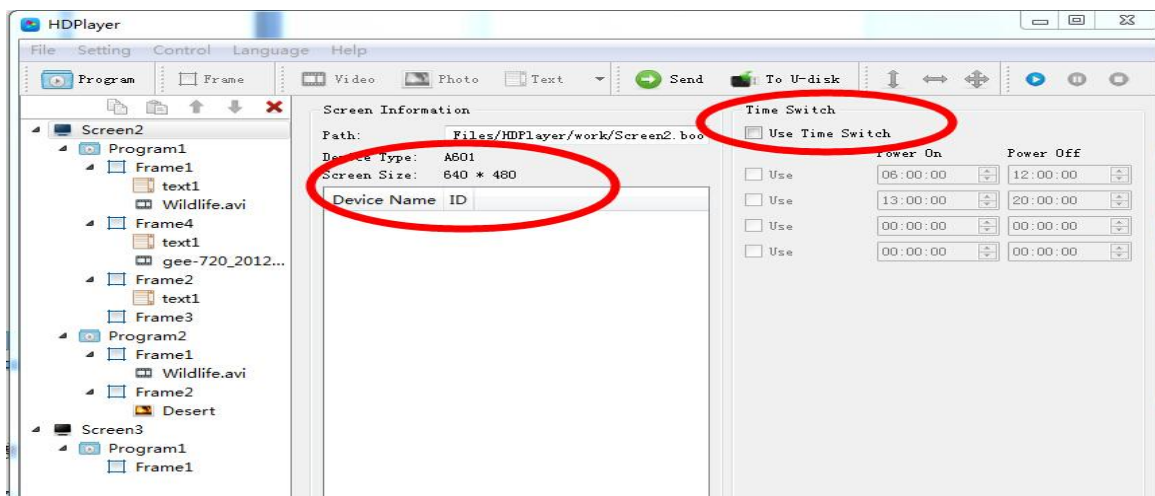
if delete the screen, just right- click

1) Set Play Window

Ways: Click Setting –screen setting (The width and Height it is led display size)



2) Screen attribute: Set screen play time and all controller connected



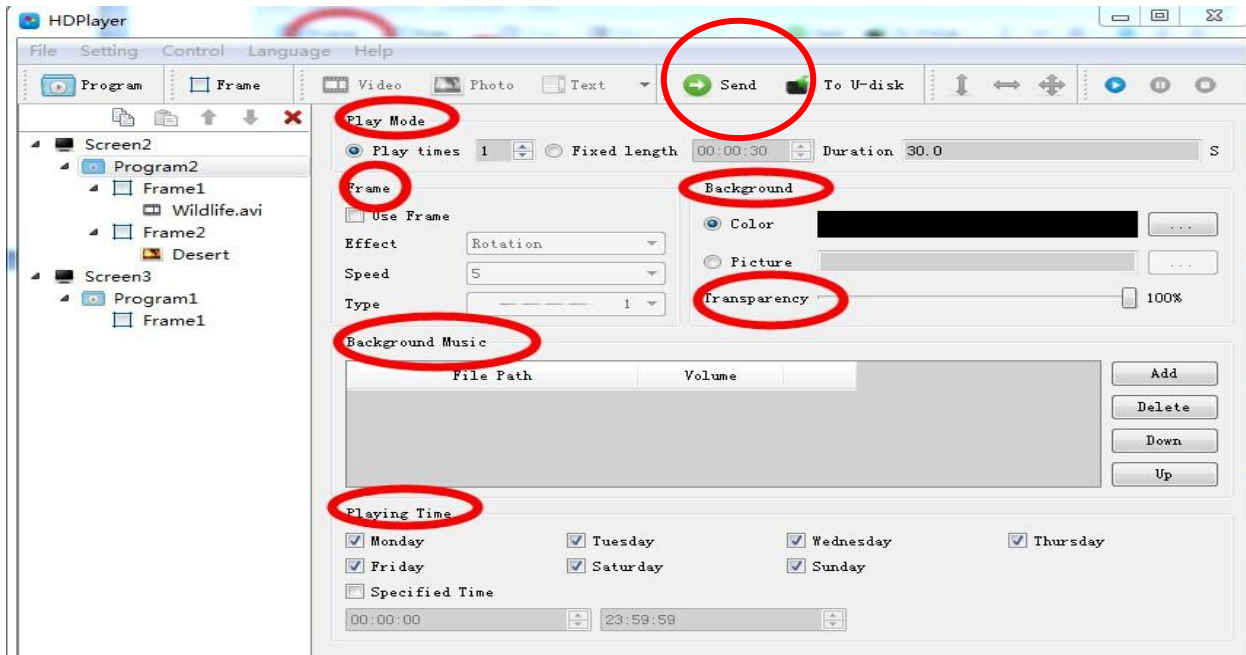
3) Add program

Ways: Click file –screen -Program (First it need set up Screen file first)



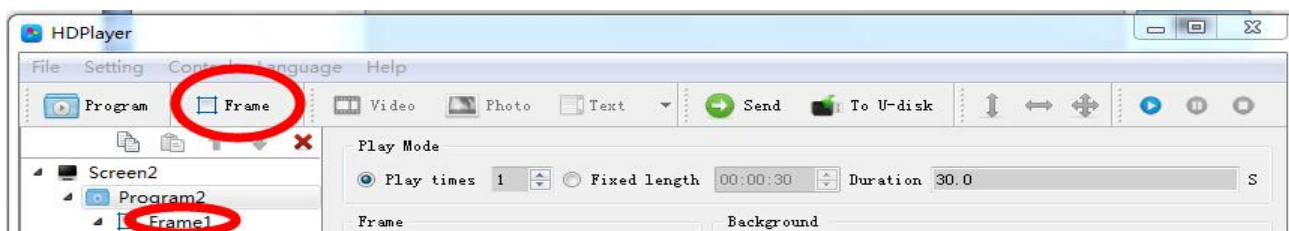
- ◆ If delete program, click red“X” or right-click program
- ◆ For program, when right -Click, it can rename, delete, add program, add frame, copy.
- ◆ For use frame(different meaning), it can add screen boarder effects
- ◆ For program attribute, user can add play mode and play time, background music, Effects
It can set more background music.

Note: These setting it need send to sending card HD-A60X then effective.



4) Add Frame

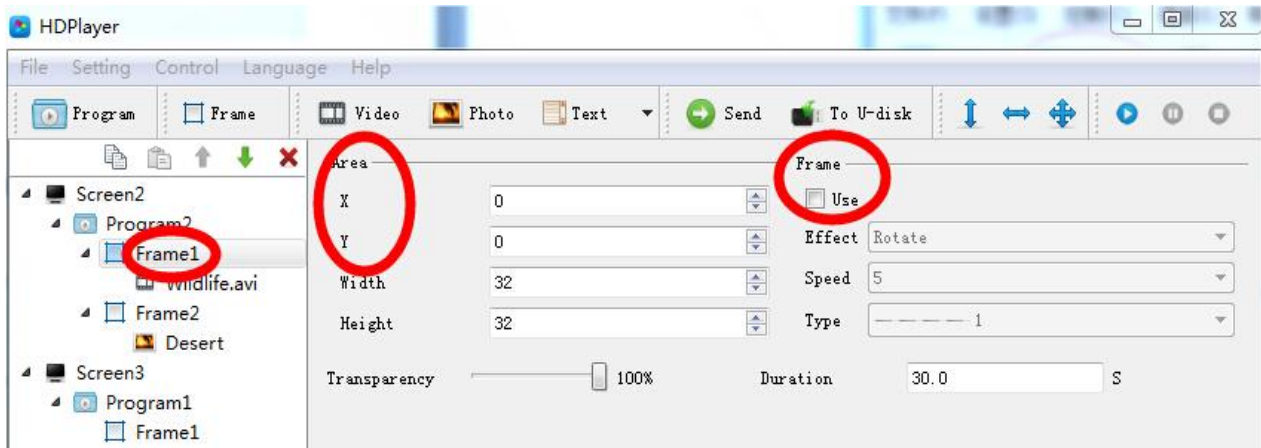
Ways: File -Screen-Program-Frame (It need add Program first).In one program, it can add more frame



- ◆ If delete Frame, click red“X” or right-click Frame
- ◆ For Frame, when right -Click, it can rename, delete, add program, add frame, copy
- ◆ For change Frame size, can use below ways

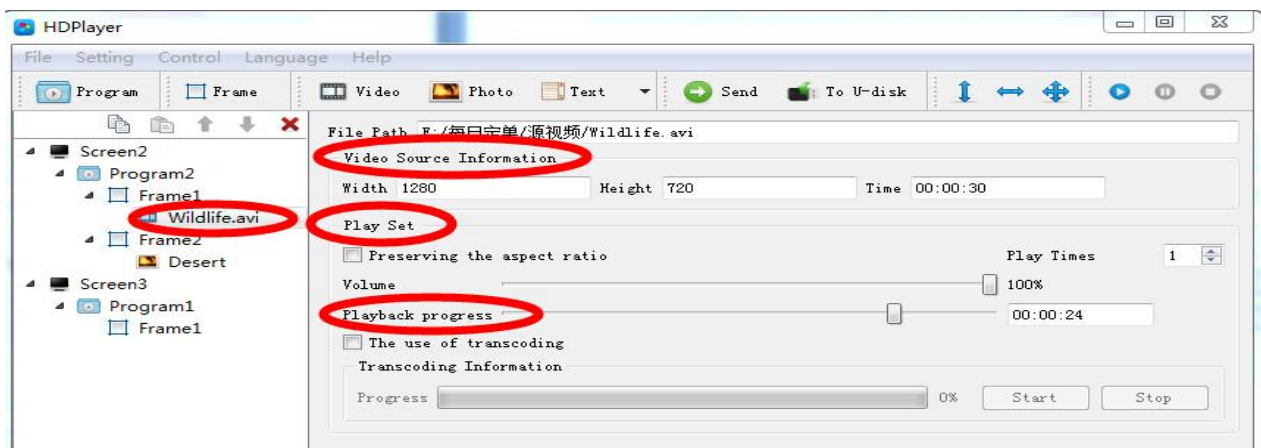
- ① Set up X and Y coordinate
- ② In Play window, moving the mouse to adjust
- ③ In the Tool, using





5) Add video

Ways: Click File-Screen-Program-Frame-Video



◆If delete video, click red“X” or right-click Frame

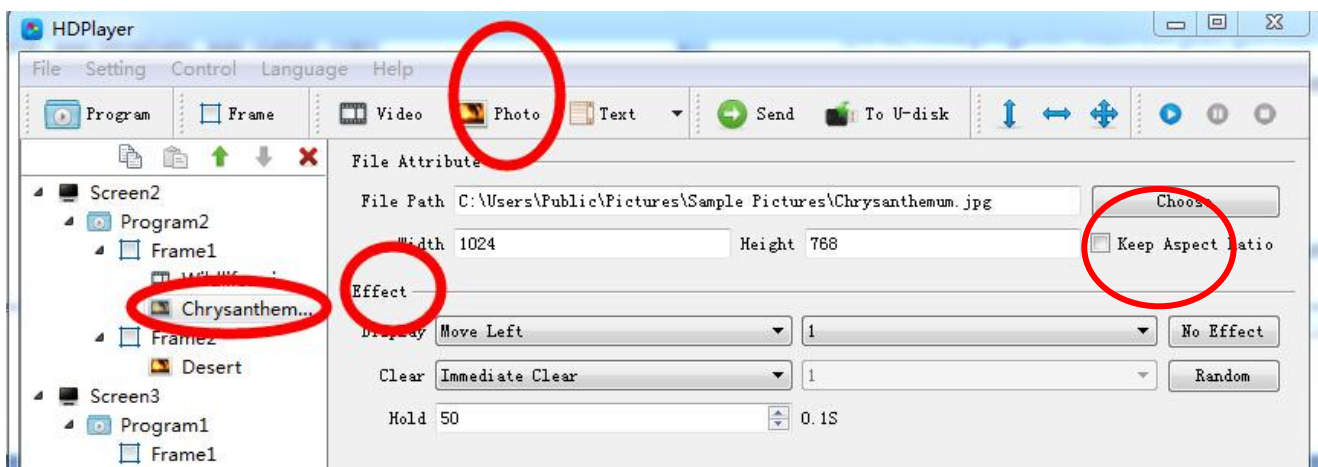
◆For video, when right -Click, it can rename, delete, add video, add photo, add text, add Gif,add office, add clock, add time ,move down, copy.

◆For video attribute,

- ①Play set(Preserving the aspect ratio): it meaning keep original video source width and height
- ②Playback progress: Time for play process
- ③The use of Transcoding: Whether use transcoder

6) Add Photo

Ways: Click File-Screen-Program-Frame-photo. (It need add Frame first).In one frame it can add more photos.



◆ If delete Photo, click red“X” or right-click photo

◆ For photo, when right -Click, it can rename, delete, add video, add photo, add text, add Gif, add office, add clock, add time ,move down, copy.

◆ For photo attribute,

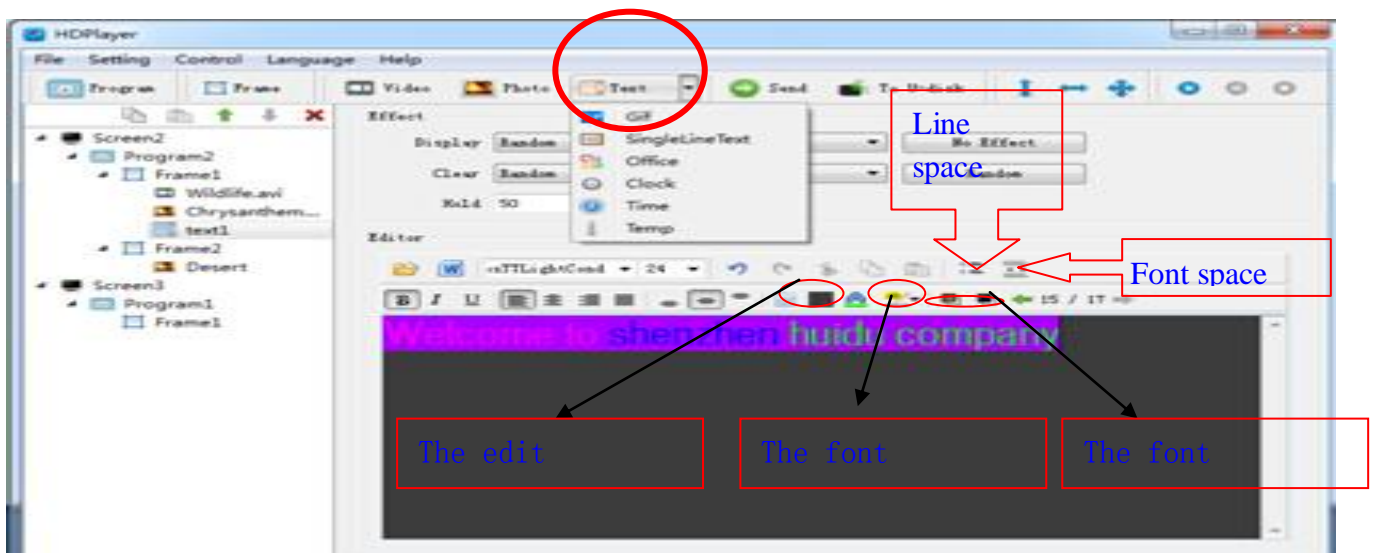
① Keep Aspect ratio: it meaning keep original photo source width and height

② Effect: it can add showing effects, like move left, right etc.

③ Clear: when effect showing over, then showing the quit effects

7) Add text

Ways: Click File-Screen-Program-Frame-Text. (It need add Frame first).In one frame it can add more text.

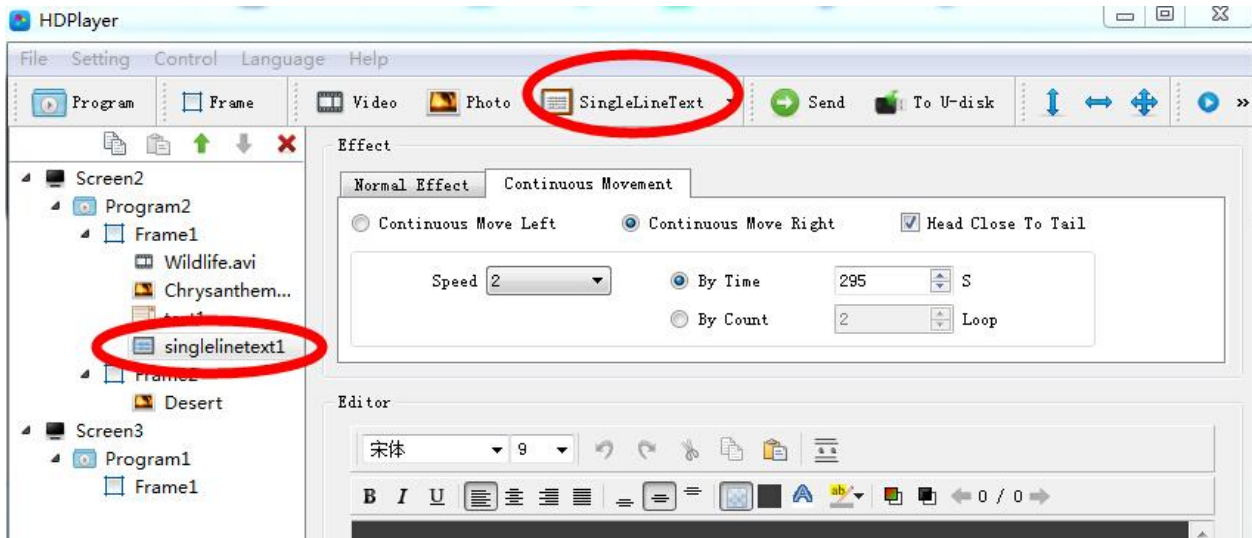


◆ If delete Text, click red“X” or right-click Text

◆ For Text, when right -Click, it can rename, delete, add video, add photo, add single line text, add Gif, add office, add clock, add time ,move down, copy.

8) Add single line text

Ways: Click File-Screen-Program-Frame-Text-Single line text. (It need add Frame first).In one frame it can add more text.



◆If delete single line Text, click red“X” or right-click Text

◆For Single line text, when right -Click, it can rename, delete, add video, add photo, add single line text, add Gif, add office, add clock, add time ,move down, copy.

◆For showing effects it have Normal effect and Continuous movement

Note: When word it is less, not more than 1 line, we select this types,

If more than 1 lines, it will show in second pages, we select Text,

9) Add Office file

Ways: Click File-Screen-Program-Frame-Text-Office. (It need add Frame first).In one frame it can add more office files.



◆If delete office file, click red“X” or right-click Text

◆For office file , when right -Click, it can rename, delete, add video, add photo, add single line text, add Gif, add office, add clock, add time ,move down, copy.

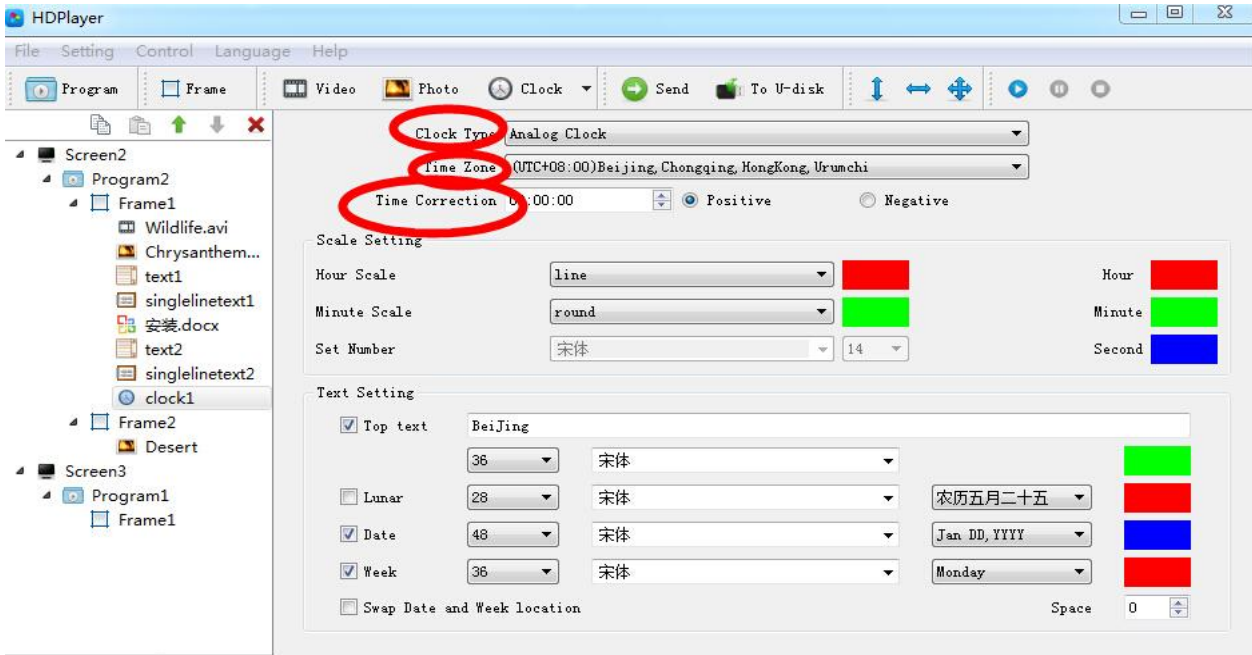
◆ Note: The computer need install office 2007 first, also support word, Excel and PPT etc.

◆ **Note:** For Color Inversion: when using Excel and Word, it need select this (because the file word it is black, also in software the edit window it is also black, so it need inversion)

10) Add clock

Ways: Click File-Screen-Program-Frame-Text-Clock (It need add Frame first).In one frame it can add more clocks

It have Analog clock, Digital clock and picture clock



Analog clock



Digital clock

The picture clock

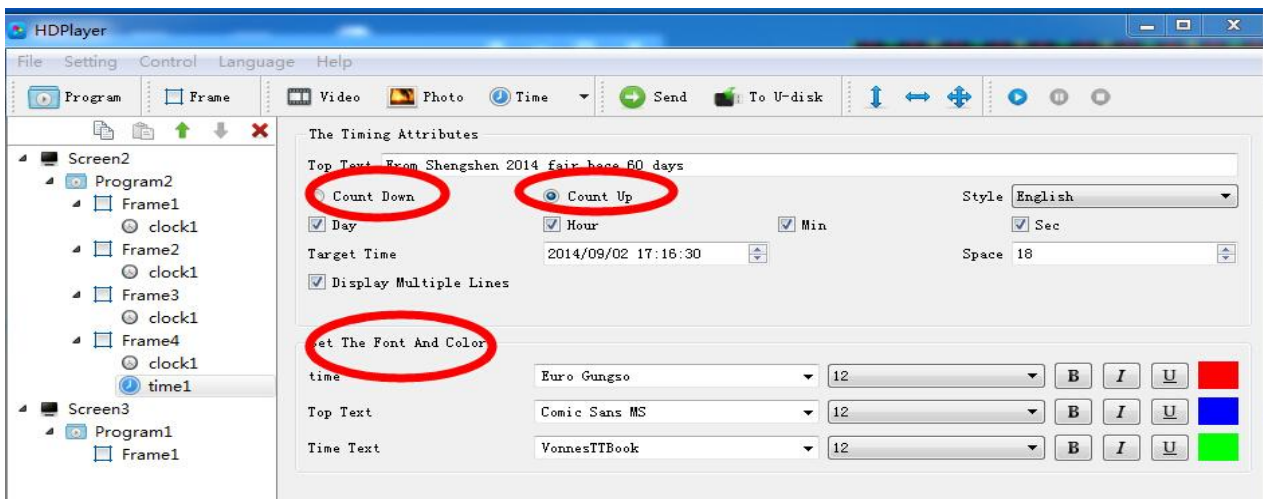


- ◆ If delete Clock, click red“X” or right-click Text
- ◆ For Clock, when right -Click, it can rename, delete, add video, add photo, add single line text, add Gif, add office, add clock, add time ,move down, copy
- ◆ If time Deviation, it can use time tine correction (Positive or Negative)
- ◆ Have time zone, for different country

11) Add Time

Ways: Click File-Screen-Program-Frame-Text-Time. (It need add Frame first).In one frame it can add more time

Include Count down and Count up.

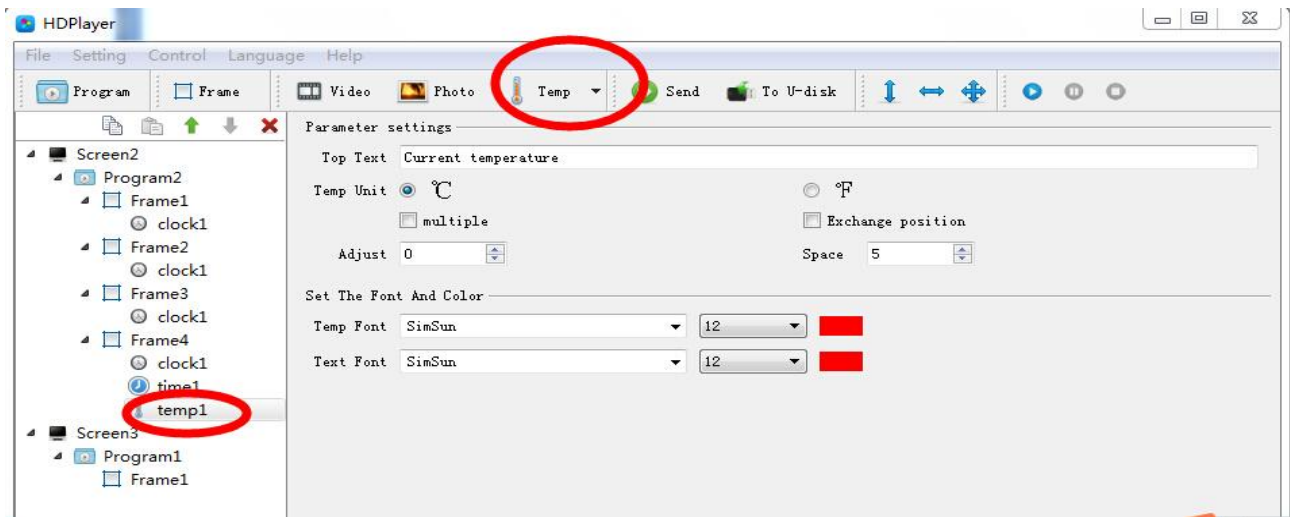


- ◆ If delete Time, click red“X” or right-click Text
- ◆ For Time, when right -Click, it can rename, delete, add video, add photo, add single line text, add Gif, add office, add clock, add time ,move down, copy

12) Add temperature

Ways: Click File-Screen-Program-Frame-Text-Time. (It need add Frame first).In one frame it can add more time

Note: It need weld temperature sensor first (Ours type DS18B20)

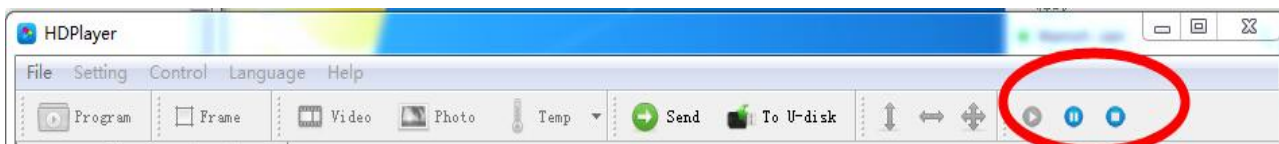


- ◆ If delete temperature, click red “X” or right-click Text
- ◆ For temperature, when right -Click, it can rename, delete, add video, add photo, add single line text, add Gif, add office, add clock, add time ,move down, copy
- ◆ If have deviation, it can adjust

4. Program preview and save

1) Program preview: After edited the program,

Click  to preview, Click  to Pause, Click  to Stop.



2) Program saved

Ways: Click File-Save as.

The program of the default path: The software of the installed hard disk----and the Folder name : Work----- the file name it is Screen.boo. Next time can open by click File -Open.

3) Export and import file

Ways: Click File-Export. Edit the program and Export to the defined path ,then next time it can use in other computer

Ways: Click File-Import. Put the export file to the software.

Chapter 8 Program update

After below steps, we finished to edit the program, and send the program to display.

The sending card HD-A60X series support 2 types to send program (one by network , another by U-disk), also it support U-disk to expand memory limitless.

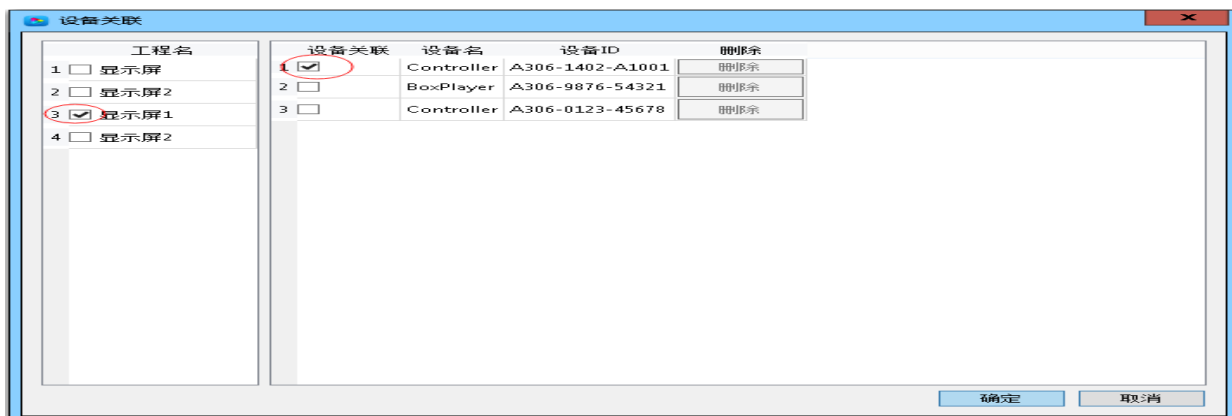
1 .Program by Sending and Cluster sending

1) When just one led display and one HD-A60X sending card, just click” Send” to send program. Ways: Click Send.

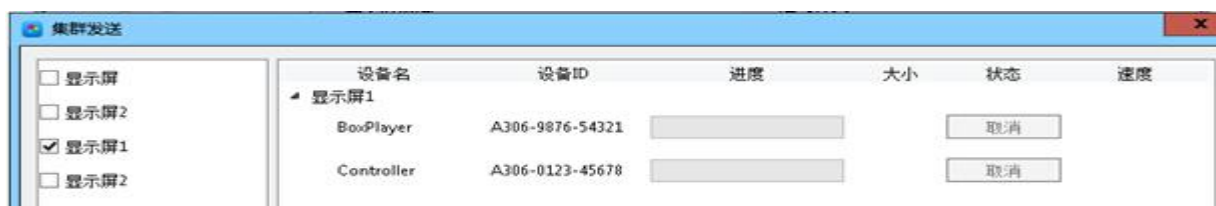


2) When one screen file related to more sending cards, the screen file can send to all sending cards(it meaning cluster sending)

When more screen files related to one sending card, the last screen file program can be instead before sending program.

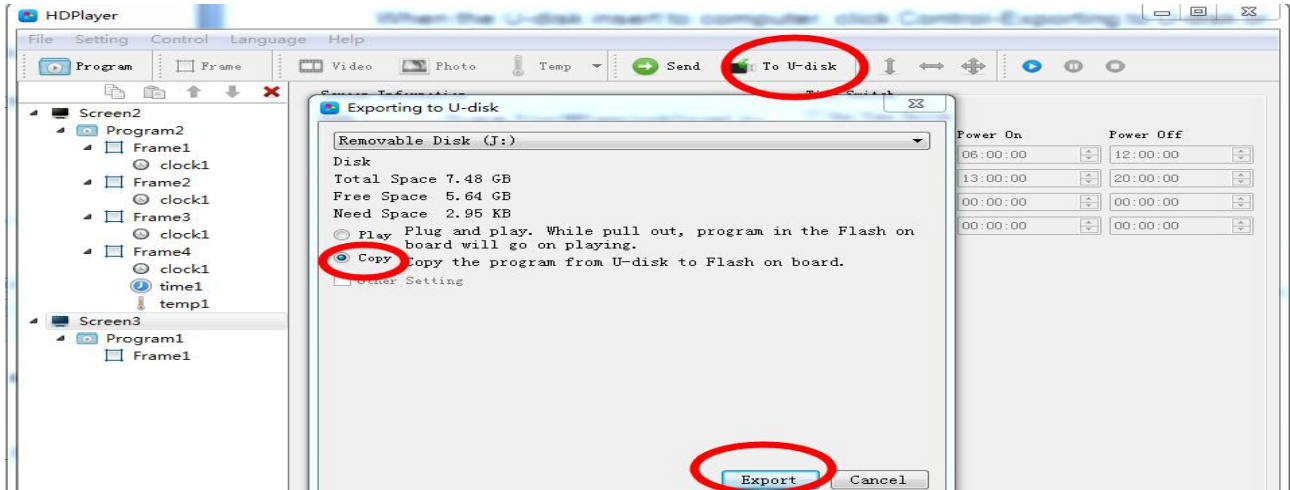


Ways: Click Control –Cluster sending or Click Send.



2. Program by U-disk to update(Copy)

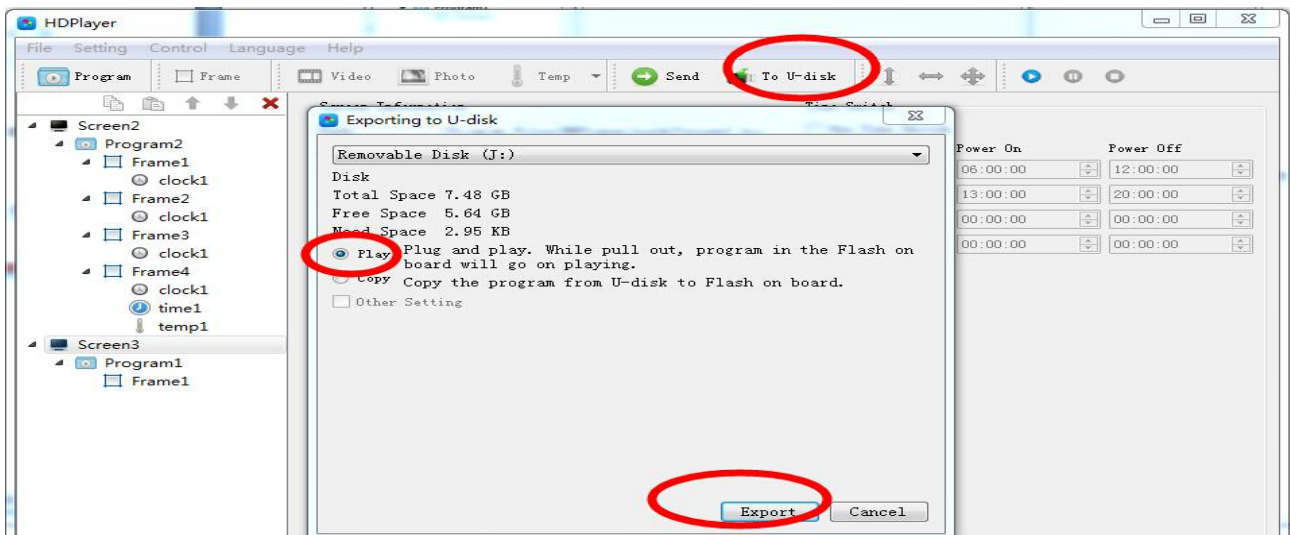
Ways: When the U-disk insert to computer, click Control-Exporting to U-disk or Click To U-disk. Select Copy.



- ① When Export the file by U-disk, then insert the U-disk to sending controller HD-A60X series, the controller will copy the U-disk program to the itself of Flash IC, the led display will show the process
- ② After Copy finished, then pull out the U-disk, and the display showing the new program
- ② The sending controller HD-A60X series support more than 5m extension lines

3. U-Disk expand memory Limitless by Play

Ways: When the U-disk insert to computer, click Control-Exporting to U-disk or Click To U-disk. Select Play.



- ① When Export the file by U-disk, then insert the U-disk to sending controller HD-A60X series, the controller play the U-disk program(no need restart, plug and play). Using this way It can expand memory limitless.

- ② When sending program by network, it is sending to U-disk(it meaning can limitless expand according to your U-disk size)
- ③ The sending controller HD-A60X series support more than 5m extension lines

Chapter 9 System setting

1. System Setting

Click Setting -> System Setting , enter into software setting, includes: Save Warning, Delete Warning, Use Password.

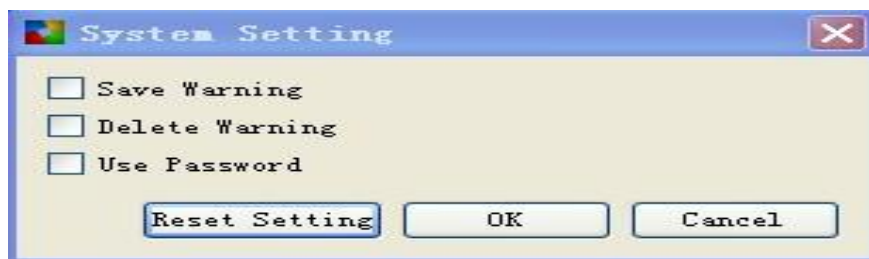


Figure 26 System Setting

- 1) Save Warning: When selected , each time operate to change program ,and it have a warning
- 2) Delete Warning: When selected, each time operate to delete program, and it have a warning
- 3)Use Password: The password it is 168 or 888.When selected, each time operate to change program , it need enter the password.

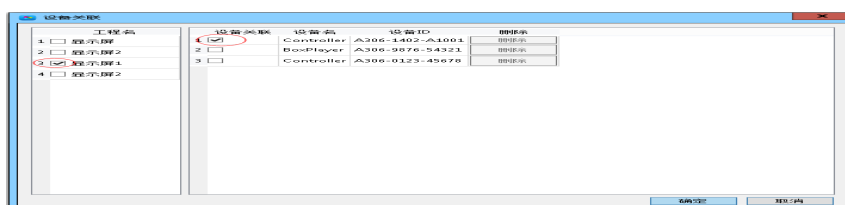
Chapter 10 Control setting

In Software, Click Control, and it include below total 9 functions

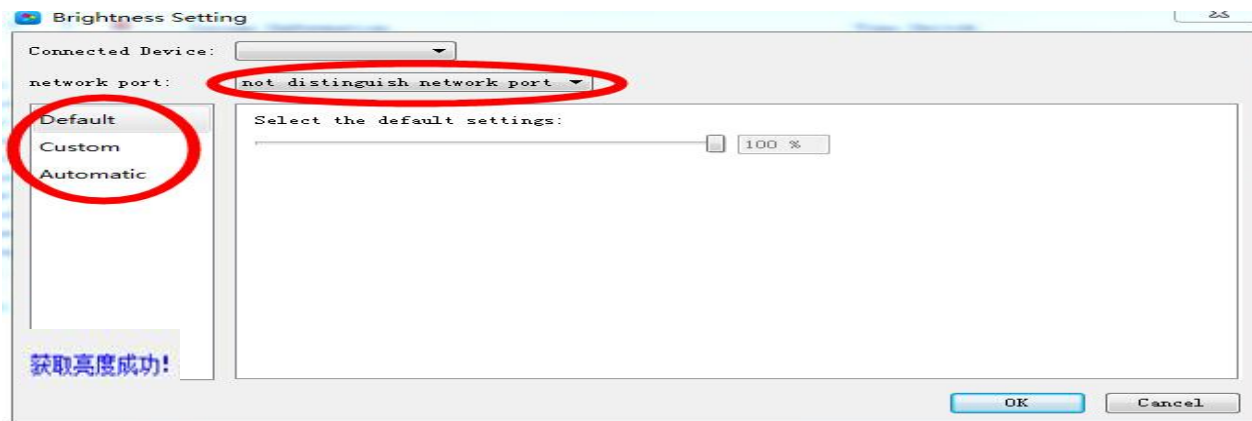
(Device bind, Brightness setting, Time correction, Cluster sending, Export to U-disk Screen testing, Firmware updating, Mac updating, Device network information)



- 1. **Device Bind.** It means the relationship between the display and the sending controller. Just the controller and the display bind together, it can send successfully



2. Brightness setting



◆ When connected the sending controller ID, and at the bottom left of software, it show “Got brightness successfully” then it can adjust

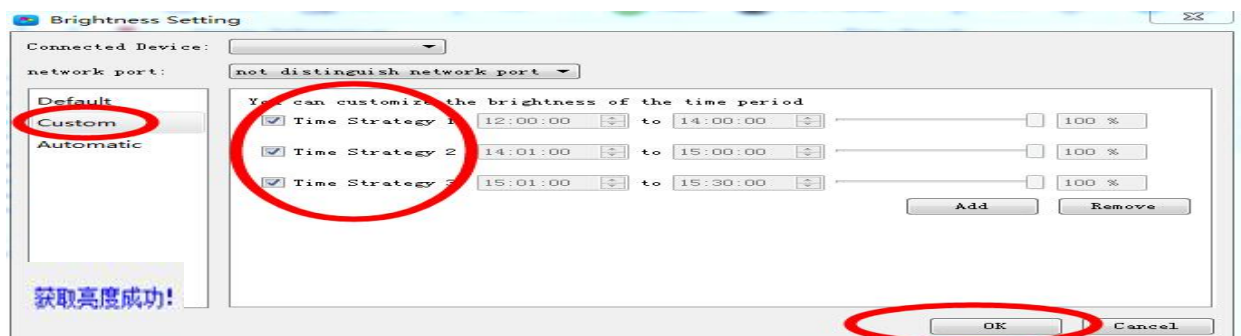
◆ According to different Network port setting: Not distinguish network port, Network port1 (just adjust Network port1), Network port2 (just adjust Network port2)

◆ It have 3 types for adjust: Default , Custom and Automatic

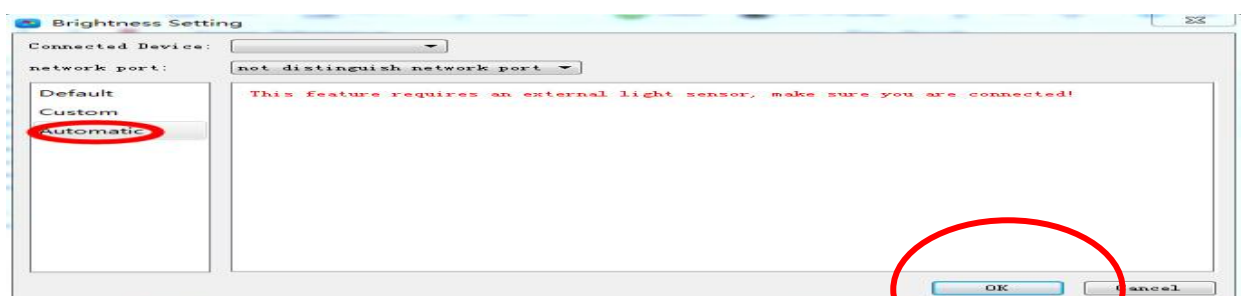
① Default



② Custom: When set the time period, then click “OK”, and at the bottom left of software ,it show set successfully, then it mean saved in the controller successfully.



③ Automatic: It need weld brightness sensor.

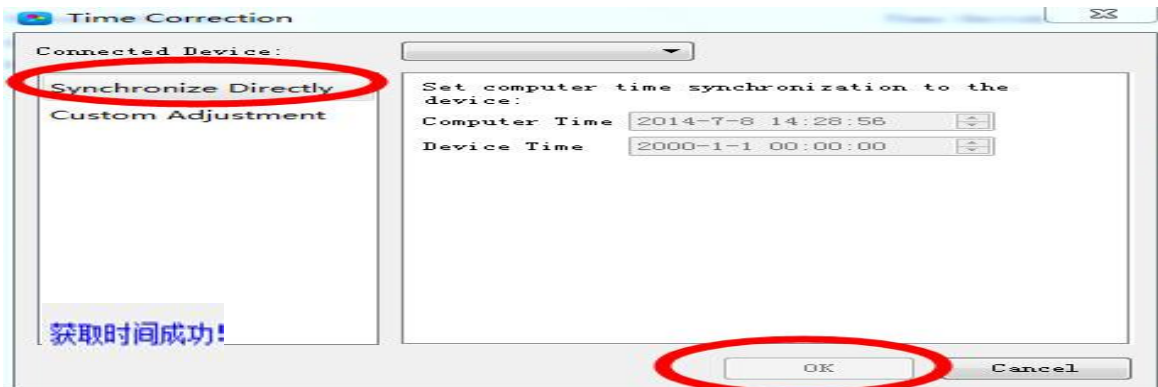


3. Time correction

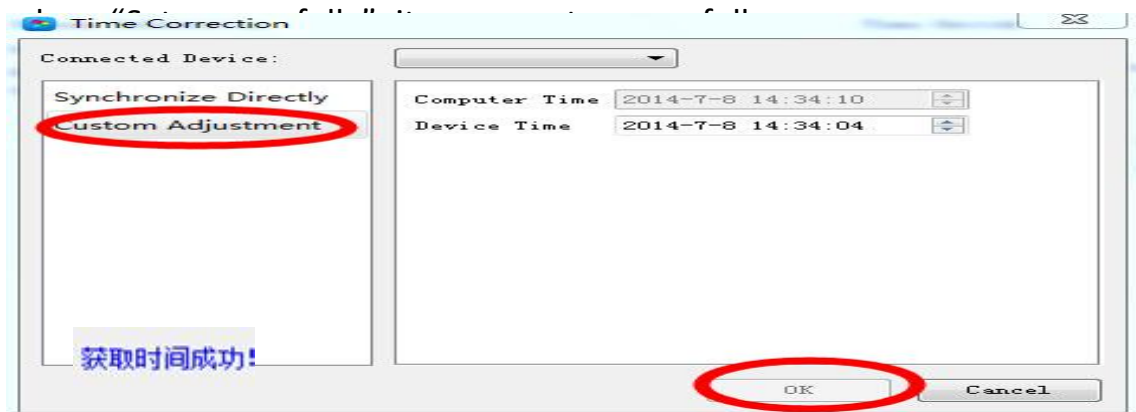
When the sending card HD-A60X series recognized the ID, at the bottom left it show 'got time successfully', then it can correction the time.

The software itself can adjust the time zone automatically, no need by hand set time zone.

1) Synchronize Directly: It shows time with computer synchronous. Then click "ok", and at the bottom left show "Set successfully", it means set successfully



2) Custom adjustment: First set the time Then click "ok", and at the bottom left

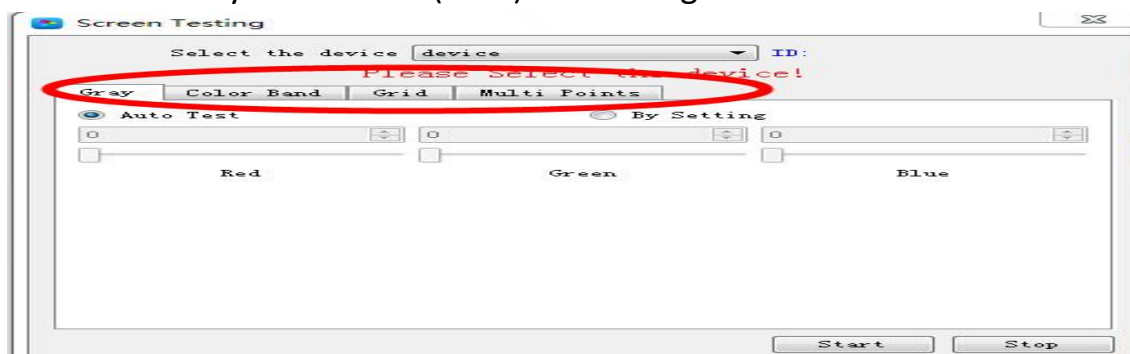


4. Cluster setting: Reference Chapter 8 of Program update

5. Export to U-disk: Reference Chapter 8 of Program update

6. Screen testing: The sending card it need recognized the ID, then it can test.

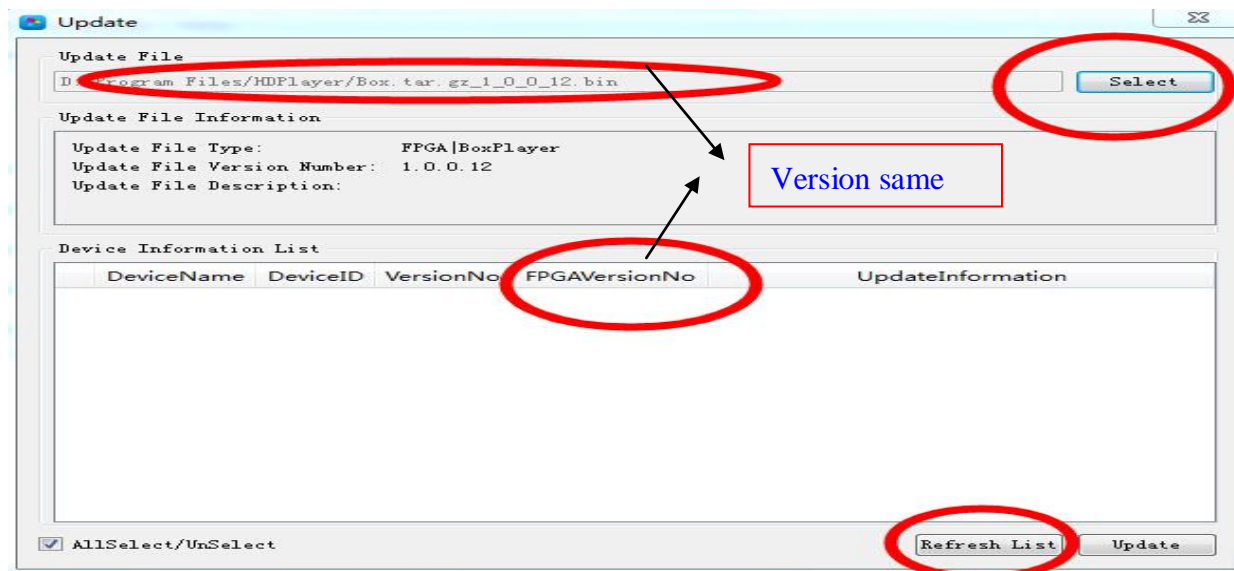
Also can test by test button (SW1) on sending controller.



7. Firmware update: The sending card recognized the ID, then it can update.

Usually the software version and firmware version it is same, do not need update

The software itself have firmware version (File name.bin)



8. Device network information

The sending card HD-A60X series recognized the ID automatically, no need set IP.

If user need set Fixed IP,click Control-Device network information to reset IP

Ways:Click Set—then select Set,it can set the sending card IP

(Note:The setting IP it need in same network segment with computer,if cross the segment ,please contact us for details)

**Thanks again for supprting Our
Huidu company led display controllers
More details visit www.huidu.cn**