Chapter 1. Network Setting

The controller HD-D1/D3 series can connect computer directly, also can connect via Router to computer.

When it is connected with computer, the network port (the green light is on), then wait for few seconds. When the right corner of computer show “Network normal”, it means it has been connected to a network, then open the software HDPlayer, it will find the controller ID automatically.

Chapter 2. The Hardware setting

1. Connection setting.

   1) Select the controller ID

   ![Hardware Setting](image)

   2) Receive card parameter: Click Smart setting.

   Set Smart Setting only at the first time

   1). Click Smart setting, then set basic information.
Each LED module pixel of width

2) Click “Next”, then go to “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”, go to “Data Polarity Setting”
4) Click “Next”, go to “Color Channel Setting”.

5) Click “Next”, go to “Line controlled by One RGB Data”
6) Click “Next”, then go to “Scan Mode”

For 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, go to 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

If Alignment successfully, it shows like this and save file. (if next time have same LED display, do not need set it again, just click Setting –Hardware setting –Import, importing this .doo file

2. Basic parameter

1) Refresh rate: with the higher refresh rate, the LED displays more fluently.

The Refresh rate is calculated by computer, no need to set manually.

1) Refresh acceleration: With such refresh rate and add it as proportional.

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

2) Gray Level

The Gray Level is used to represent the color richness (Gray level 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536 etc.) Usually set as 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**: Low light, normal and high light.

4) **Frequency**: It means the shift frequency of the scan program (range 3.125MHz-31.25MHz).

   It is better to set the frequency lower than 25MHz. Because most of LED screen driver ICs are lower than 25MHz.

5) **Priority Mode**

   ◆ **Brightness Priority**: Protecting the brightness lost, then do refresh acceleration, usually used for outdoor display which requires higher 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.

6) **Output mode**

   ◆ **Normal output**: For ordinary HUB type.

   ◆ **Two separate output**: For sacrifice half control height to increase 1 time 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 separated output and four separated output can be not used together with extension board

6) **Gamma**: The Gamma represents the contrast degree between lightness and darkness (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 time control width (Refresh rate and brightness no change)

9) **Use20 Groups of RGB**: Just used for specified HUB, such as 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 has 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 scan moving clock, usually set 50%
15) **Blank lines:** When refresh rate is high, it could result showing afterglow, for adjusting this data it can decrease affect, but cannot eliminate. It used for scanning modules, for static module it is useless

16) **Luminance efficiency:** usually set as 85%

# The Chapter 3. Edit program

The software interface has 2 parts: Display 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 program video, pictures, text, etc in the display
2) Edit program window: Menu, Tool, Structure and attribute

**Edit program window**

![Edit program window](image)

## 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 frames 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 the mouse

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 controllers are 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.

![Image of software interface showing program and frame options]

1) Add Frame

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

![Image of software interface showing frame options]

◆ 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

![Tool screenshot]

2) Add video

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

![Video screenshot]

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

3) 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 means 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

4) 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.
◆ 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 time 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 4. Program update

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

The controller HD-D1/D3 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-D3 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 controller( it meaning cluster sending)

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

1. 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.

③ The sending controller HD-A60X series support more than 5m extension lines.

2. 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 5. System setting

1. System Setting

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

![System Setting](image)

Figure 26 System Setting

1) Save Warning: When selected, each time operate to change program, 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 is 168 or 888. When selected, each time operate to change program, it need enter the password.

Chapter 6. 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 show “Set successfully”, it means set successfully

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.)