Table of Contents

Chapter1 Introduction 4
1.1 Features 4
1.2 Requirements 4
Chapter2 Installation&Uninstallation 5
2. 1 Installation 5
2. 2 Uninstallation 5
Chapter3 How to Run LedStudio 6
3.1 LedStudio Interface 6
3. 2 LedStudio Menus 7
3. 2. 1 File Menu 7
3.2.1.1 New 7
3.2.1.2 Open 7
3.2.1.3 Save 7
3.2.1.4 Save as 7
3.2.1.5 Open demo file 7
3.2.1.6 Open recent files 8
3.2.1.7 Log off 8
3.2.1.8 Exit 8
3. 2. 2 Control Menu 8
3.2.2.1 Play 8
3.2.2.2 Play Last 9
3.2.2.3 Play Next 9
3.2.2.4 Pause 9
3.2.2.5 Stop 9
3.2.2.6 Notify 9
3.2.2.7 Score Manager 11
3.2.2.8 Play PowerPoint File 13
3.2.2.9 Stop PowerPoint File 13
3.2.2.10 Play VCD/DVD 13
3.2.2.11 Backup Program 13
3.2.2.12 Manager for LED Screen Sever 13
3. 2. 3 Tool Menu 14
3. 2. 4 Option Menu 14
3. 2. 4. 1 Screen Combination/synchronism 14
3. 2. 4. 2 Set Screen Brightness/ Contrast/ Color 16
3. 2. 4. 3 Screen Area 17
3. 2. 4. 4 Play background/foreground 19
3. 2. 4. 5 Lock/Unlock LED Screen Properties 22
3. 2. 4. 6 Turn on/off LED Screen power 23
3. 2. 4. 7 Schedule Table 24

3. 2. 4. 8 Schedule Hide Setup 30
3. 2. 4. 9 Language 31
3. 2. 4. 10 Hide/Show Play Window 32
3. 2. 4. 11 LED Screen Monitoring 33
3. 2. 4. 12 Hardware Setup 37
3. 2. 4. 13 Software Setup 38
3. 2. 4. 14 User Setup 61
3. 2. 5 Test Menu 62
3. 2. 5. 1 Grey Test 1 62
3. 2. 5. 2 Grey Test 2 62
3. 2. 5. 3 Grid Test 63
3. 2. 5. 4 Dot Test 63
3. 2. 5. 5 Color Bar Test 1 64
3. 2. 5. 6 Color Bar Test 2 64
3.2. 5. 7 Aging 64
3. 2. 5. 8 Check Position 65
3. 2. 5.9 Check Color 65
3. 2. 6 Help Menu 66
3. 2. 6. 1 Help 66
3. 2. 6. 2 Knowledge 66
3. 2. 6. 3 Check IP Address 66
3. 2. 6. 4 About LEDStudio 66
3. 2. 6. 5 Play File List 66
3. 3 How to make a .lsd file 67
3.3.1 Play Window Setup 67
3. 3. 2 Open a New Page of Program 68
3. 3. 2. 1 Add Step, Add Universal Display 68
3. 3. 2. 2 Step Settings 69
3. 3. 2. 3 Unversal Display Settings 69
3. 3. 3 Add New Window 70
3. 3. 3. 0 Important Notes： 72
3. 3. 3. 1 File Window 73
3. 3. 3. 1.1 File(s) Showing Area Settings 73
3. 3. 3. 1.2 File(s) Adding & Listing Window 73
3. 3. 3. 1.3 File Playing Settings 74
3.3.3.1.3.1 Photo Playing Settings 74
3. 3. 3. 2 Text Window 75
3. 3. 3. 3 Single Line Text Window 76
3. 3. 3. 4 Static Text Window 78
3. 3. 3. 5 Table Window 79
3. 3. 3. 6 Timer Window 80
3. 3. 3. 7 Database Window 83
3. 3. 3. 8 VCD/DVD Window 87
3. 3. 3. 9 External Exe Window 88

3. 3. 3. 10 Video Window 89
3. 3. 3. 11 Date/Time Window 90
3. 3. 3. 12 Temperature/Humidity Window 92
3. 3. 3. 13 Copy Window 93
3. 3. 4 Save Program 93
3. 3. 5 Play Program 93
4.4 3D display 94

Chapter1 Introduction

1.1 Features

LedStudio is a LED Display management software for Linsn LED Display Control System.

LedStudio functions in two ways:
To **setup** LED display with Linsn LED Display Control System;
To **edit and play programs** on LED Display.

Supported media file formats:
Document: .txt .doc etc.
Photo: .BMP .JPG .GIF .PCX .PNG etc.
Video: .MPG .MPEG .MPV .MPA .AVI .VCD .SWF .RM .RA .RMJ .ASF etc.

1.2 Requirements

- PC requirements:
  - OS:Microsoft Windows XP/Windows Vista/Windows 7/8/10(32/64)
  - Hardware:1024*768 display (or higher)
    64MB of Disk Space
    A DVI-D port provided by Graphics Card or Motherboard
    A USB port

Chapter2 Installation&Uninstallation

2. 1 Installation

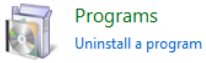
Follow the following steps to install and run LedStudio.

1. Download LedStudio from www.linsn.com or get from the CD-Disk coming with the sending card.
2. Double-click the LEDStudio.exe

and flowing on-screen instruction to finish installation.
3. LedStudio program shortcut ICON

on desktop.

2. 2 Uninstallation

1. Co to **Control Panel**, click 

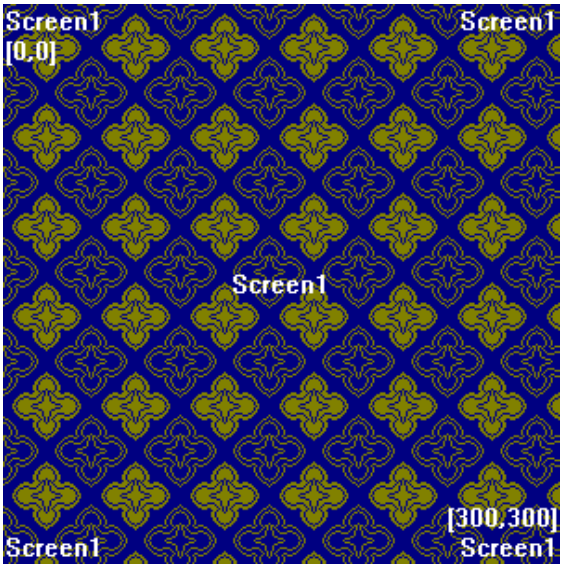
, find and select Led Software to **uninstall**
2. Select **Automatic**, click **Next** till finish uninstallation.

Chapter3 How to Run LedStudio

3.1 LedStudio Interface

When you open Ledstudio, two windows will pop up:

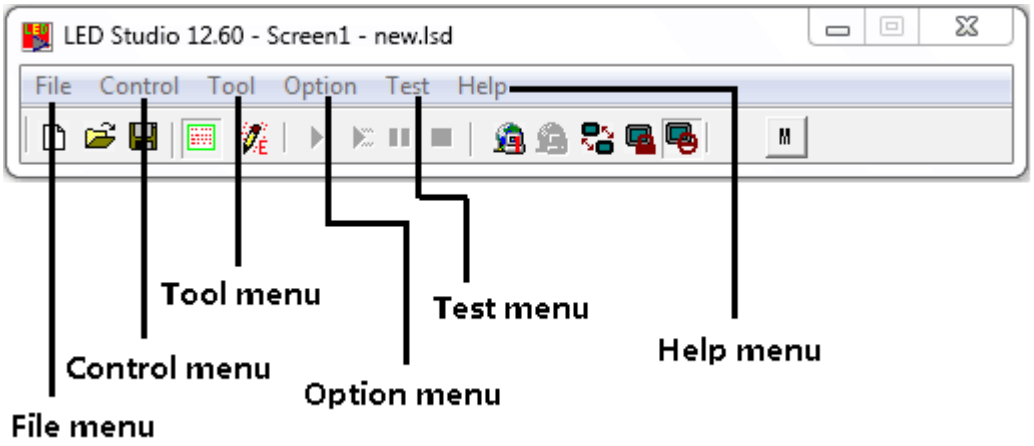
●Play window



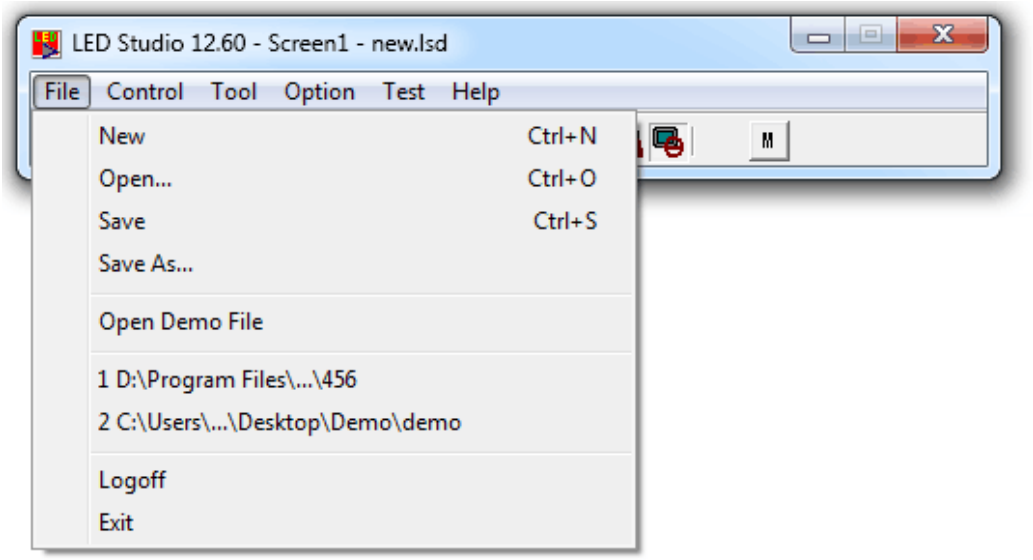
A simulated screen. Contents played by LedStudio will be shown on the above Window.

●Control window/panel

3. 2 LedStudio Menus



3. 2. 1 File Menu



3.2.1.1 New

New: create a new **.lsd** program file（.lsd is one kind of play-list/program file which is generated by Ledstudio ）.

3.2.1.2 Open

Open: open an existed LedStudio program file (.lsd file).

3.2.1.3 Save

Save: save an .lsd file.

3.2.1.4 Save as

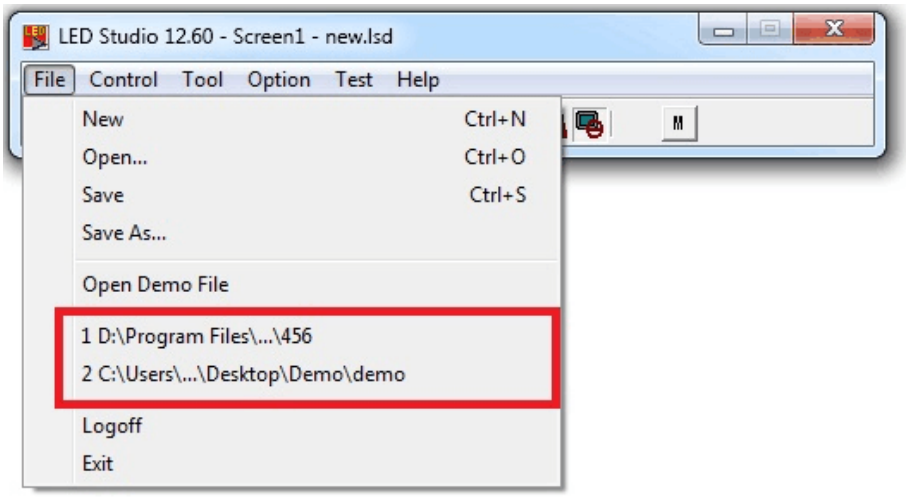
Save as: to save current program file as a new .lsd file.

3.2.1.5 Open demo file

Open Demo File: open LedStudio demo file (when downloading LedStudio software, choose the **With demonstration file** one)

3.2.1.6 Open recent files

Open recent files: open the recently .lsd files.(as following picture)



3.2.1.7 Log off

Log off: log off LedStudio to prevent further operation.

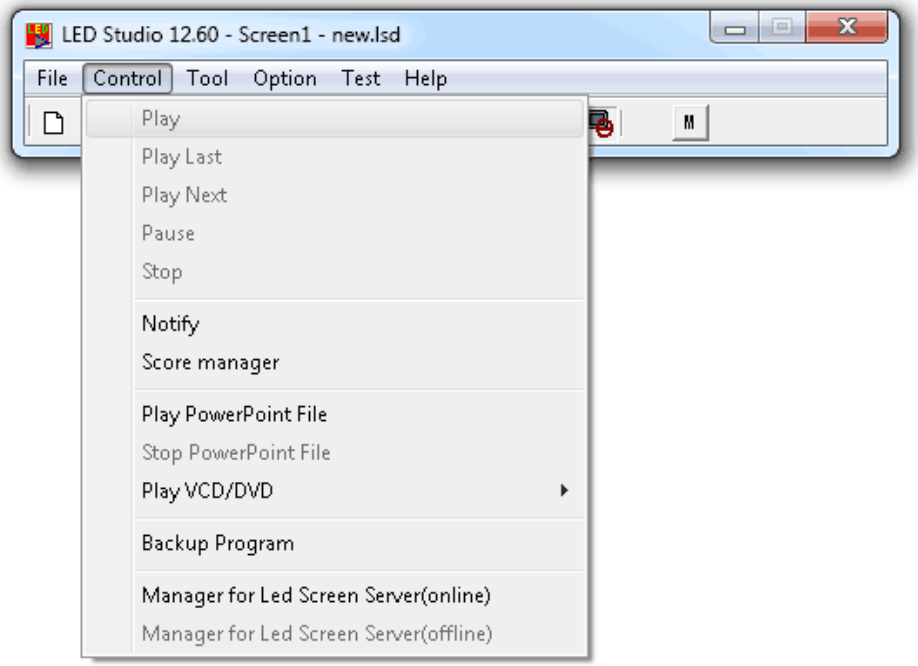
Note:This is related to the user setup option in Option menu.

You don't need to log off if you did not set the password requirement.

3.2.1.8 Exit

Exit: exit LedStudio.

3. 2. 2 Control Menu



3.2.2.1 Play

Play: Start playing program file (step by step).

Note:If there is no .lsd file loaded, this option will gray out.

3.2.2.2 Play Last

Play last: play previous **Step**.

3.2.2.3 Play Next

Play next: play next **Step**.

3.2.2.4 Pause

Pause: pause playing file.

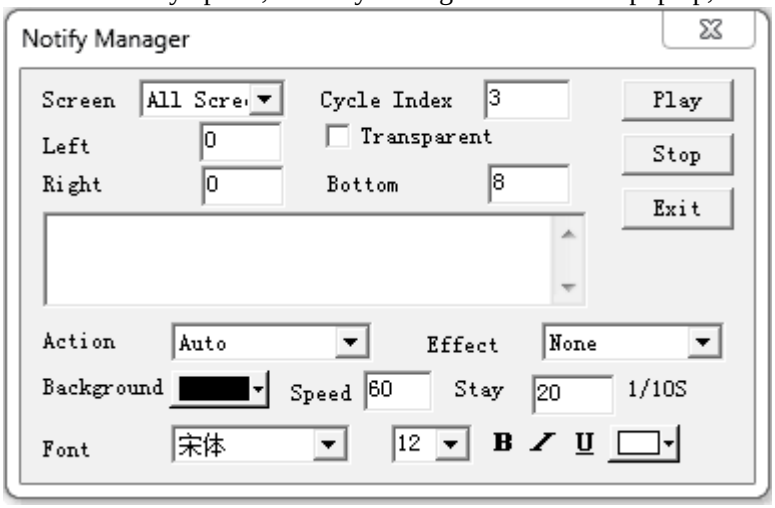
3.2.2.5 Stop

Stop: stop playing.

3.2.2.6 Notify

Notify: insert notice, when ledstudio is playing programs.

When you click on the Notify option, a Notify Manager window will pop up, as follows



Play: start showing Notify Message

Stop: stop showing Notify Message

Exit: Exit the window

Screen: choose which LED Screen to show Notify Message

Cycle Index: Not yet put into use

Left/Right/Bottom: adjust the Notify Message position

Transparent: only work when **Background** color is Black. Transparent the black background color.(Check the example shown below)

Action: How the Notify Message come into **Play Window**

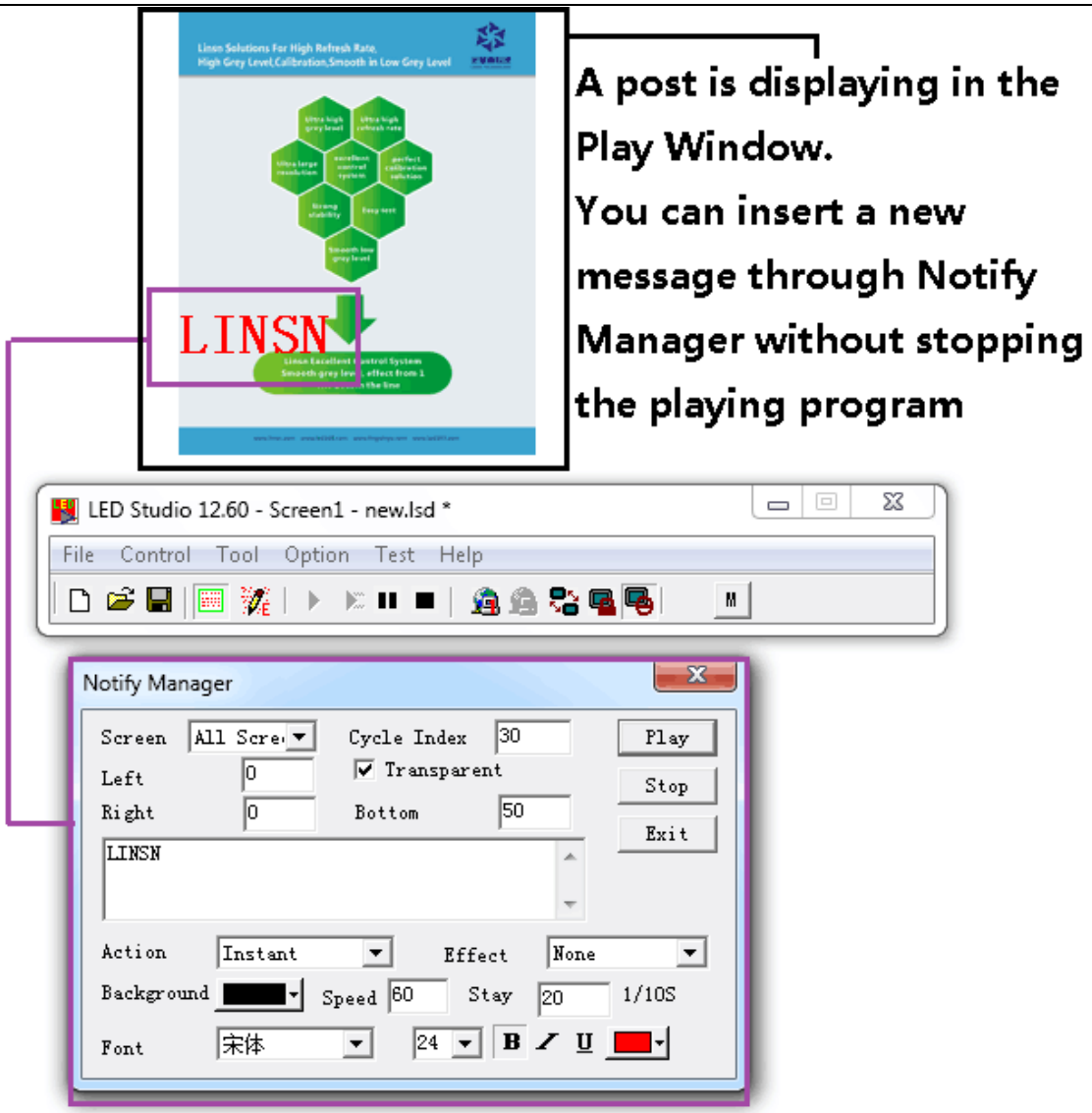
Effect: Effects for Notify Message

Background: background color for Notify Message

Speed: Notify Message coming in speed. The larger value, the slower speed

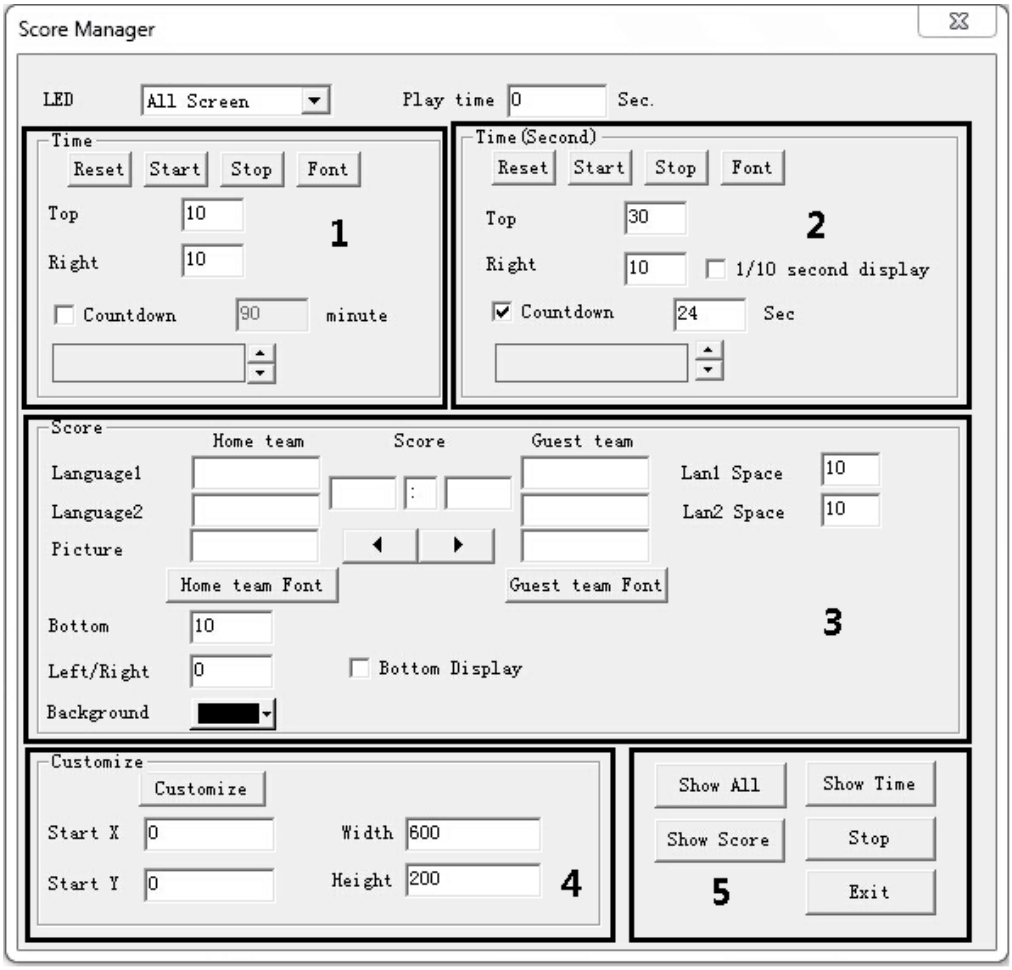
Stay: time duration for Notify Message to stay before next **Action** is taken place

Font: Font settings for Notify Message


A post is displaying in the Play Window.
You can insert a new message through Notify Manager without stopping the playing program
LINSN
LED Studio 12.60 - Screen1 - new.lsd *
File Control Tool Option Test Help
Notify Manager
Screen All Scre
Cycle Index 30
Play
Left 0
Transparent
Stop
Right 0
Bottom 50
Exit
LINSN
Action Instant
Effect None
Background
Speed 60
Stay 20
1/10S
Font 宋体
24
B
U

3.2.2.7 Score Manager

Score manager: display scores for competition games when LedStudio is playing programs.



LED Screen: choose which LED Screen to show the score
Play time: Not yet put into use

Part1 Time
Reset: reset the time to count/countdown
Start: start counting/countdown time
Stop: stop time counting/countdown
Font: font setting of time
Top/Right: set position of time (similar to set coordinate X,Y)
Countdown: check this option if needed
Minutes: time duration for count/countdown

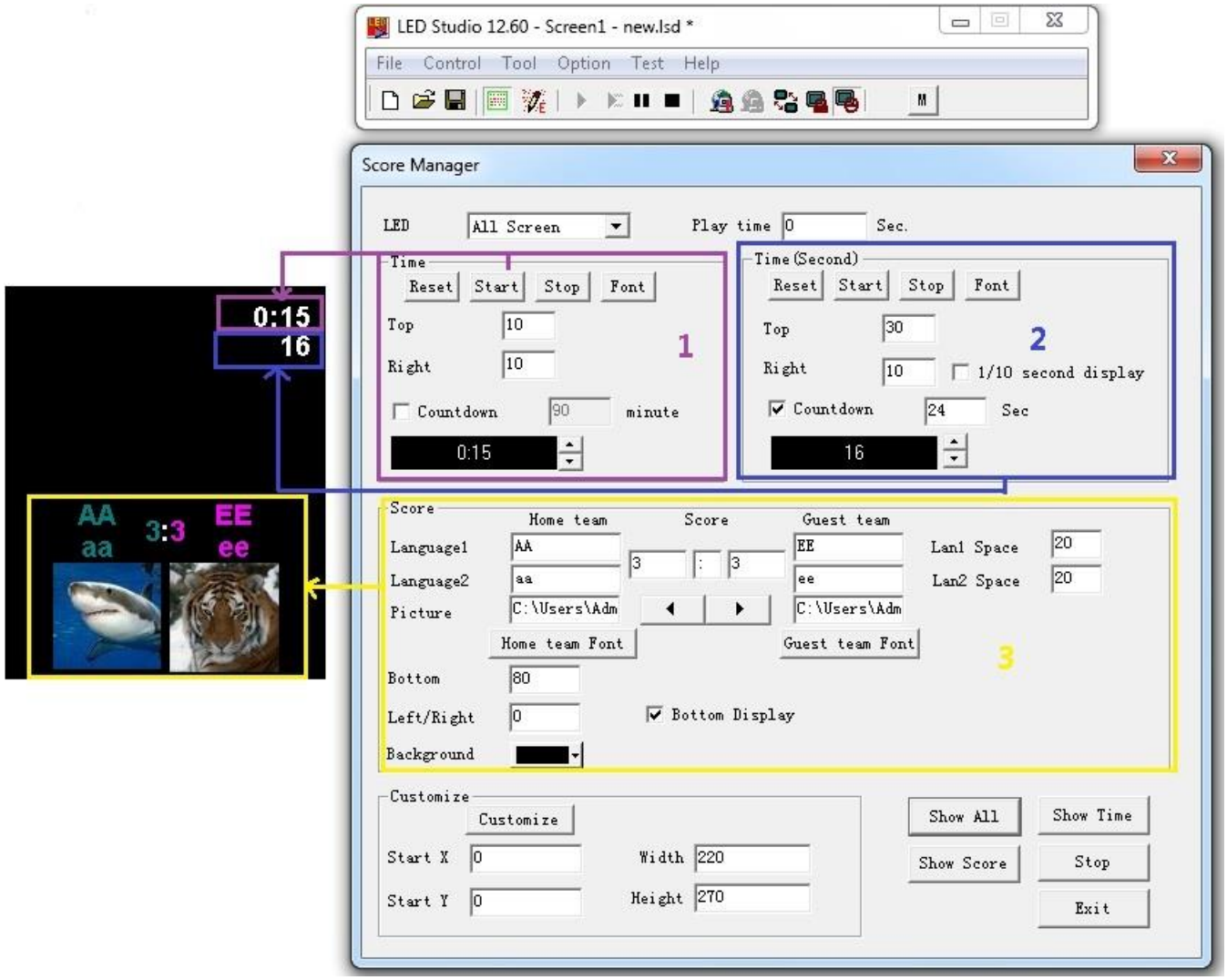
Part2 Time(Second)

Reset: reset the time to count/countdown
Start: start counting/countdown time
Stop: stop time counting/countdown
Font: font setting of time
Top/Right: set position of time (similar to set coordinate X,Y)
1/10 second display:check this option to show millisecond
Countdown: check this option if needed
Sec: time duration for count/countdown

Part3 Score
Home Team: Team/Player name, in two languages
Guest Team: Team/Player name, in two languages
Score: input score
Lan1 Space: (language1) the distance of two players' names in showing
Lan2 Space: (language2) the distance of two players' names in showing
Picture: click the 'arrow' button to add pictures
Font: font settings
Bottom: set the position of score contents (player name, score)
Bottom display: display Team/player pictures below score(check).

Part4 Customize

Show All: show both the time and score you set on the play window
Show Time:only show the time you set on part1&2 to the play window
Show Score:only show the score you set on part3 to the play window
Stop:stop showing the score message
Exit



3.2.2.8 Play PowerPoint File

Play Power point file: play PowerPoint file.

3.2.2.9 Stop PowerPoint File

Stop PowerPoint file: stop PowerPoint File.

3.2.2.10 Play VCD/DVD

Play VCD/DVD: play VCD/DVD in CD/DVD-ROM Drive.

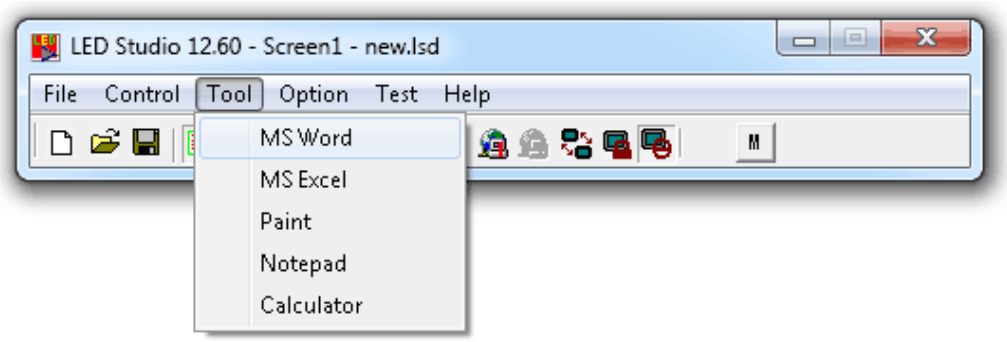
3.2.2.11 Backup Program

Backup program: backup all files of current program/.lsd file.

3.2.2.12 Manager for LED Screen Sever

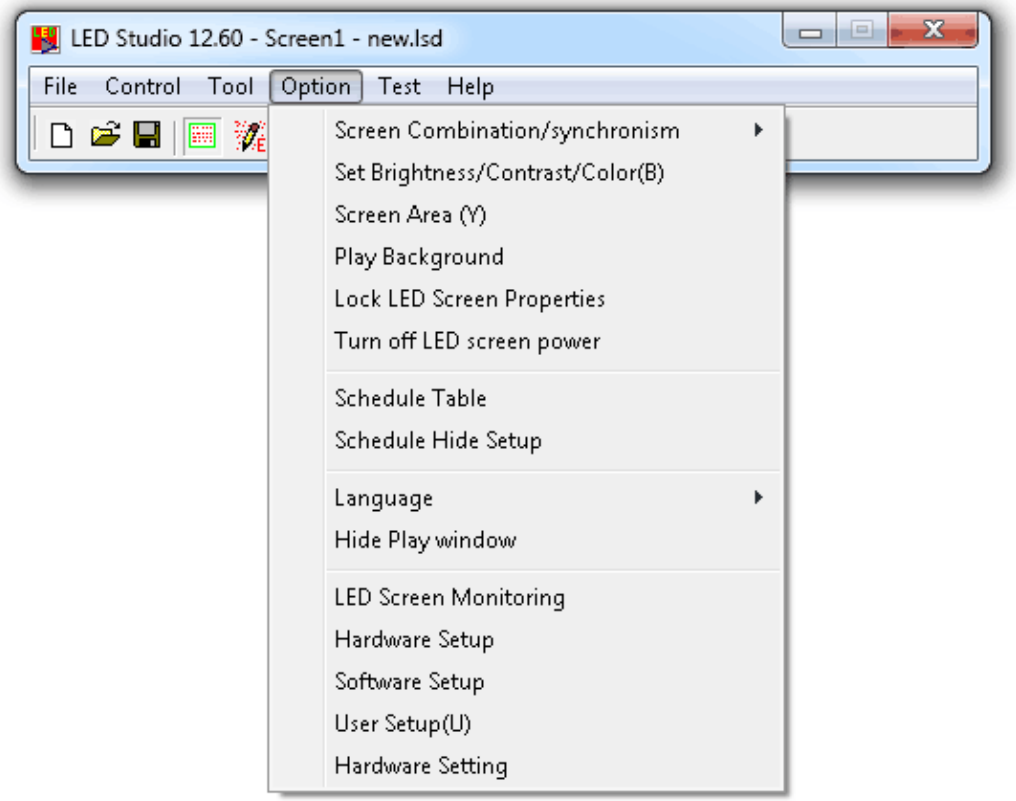
Manager for LED Screen Sever: to manage remote screen, please refer to Option Menu, Software Setup, Networking for details.

3. 2. 3 Tool Menu



Short-cuts of Microsoft Word, Excel, Paint, Notepad, Calculator. Click to open quickly.

3. 2. 4 Option Menu



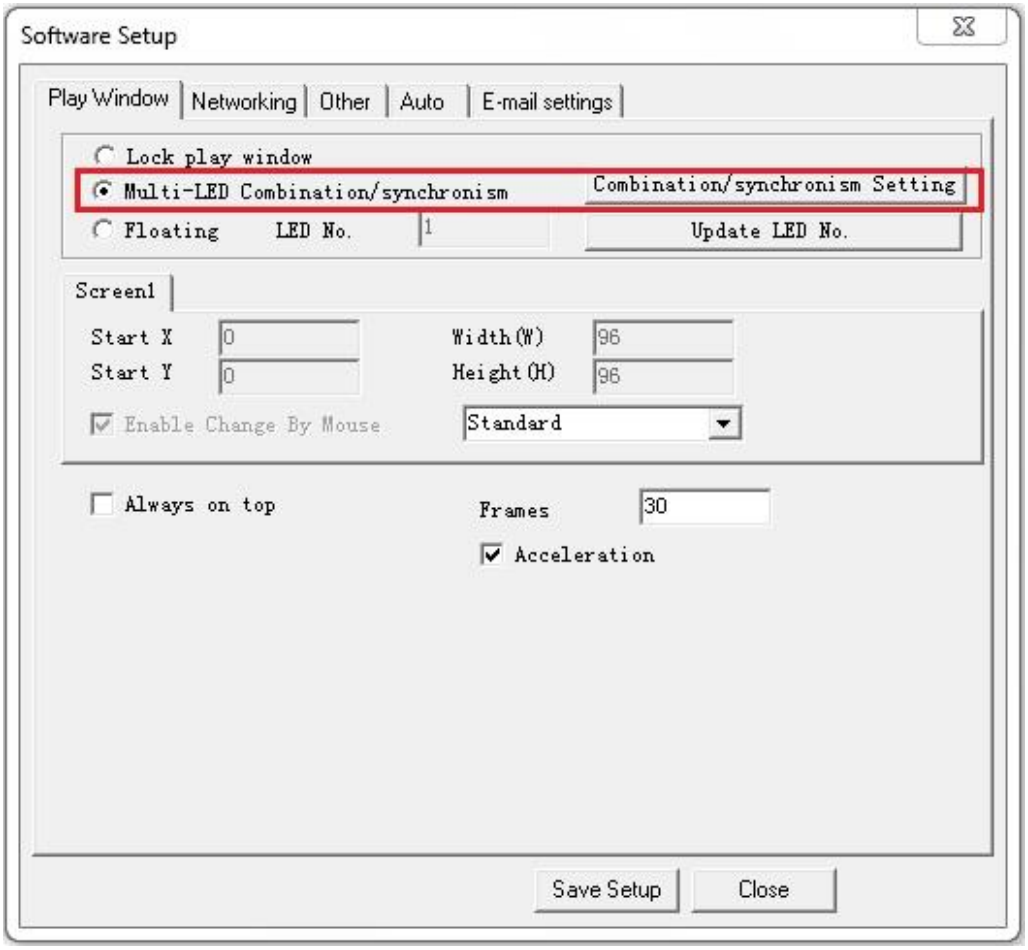
3. 2. 4. 1 Screen Combination/synchronism

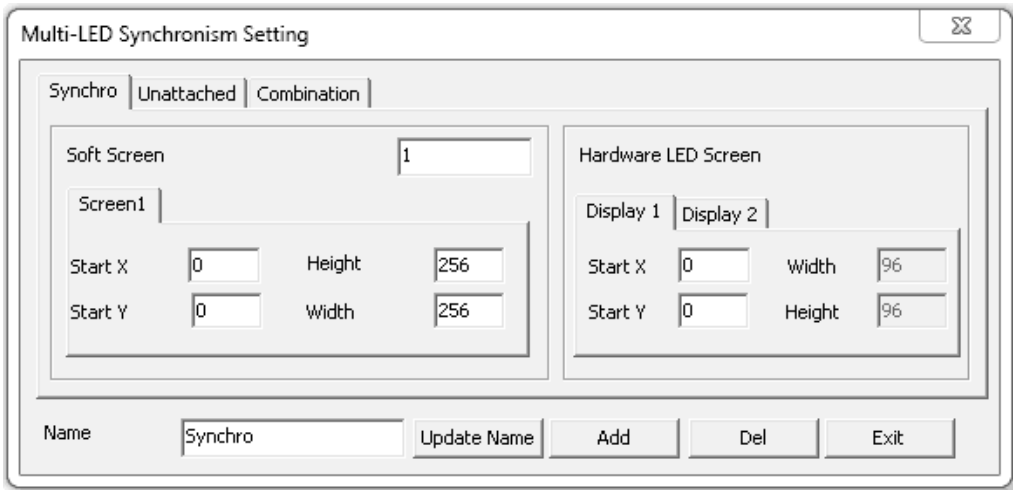
Screen Combination/synchronism: This is quick-Profiles-switch function.

First, Profile the led display combinations. When more than one led display is controlled by LedStudio, these led displays can be set as INDEPENDENT, CLONE, SIDE BY SIDE to form A bigger led display, etc.

Note:You don’t have to use this even when more than one led screen is controlled.

Go to **Software Setup,** select **Multi-LED Combination/synchronism,** Click **Combination/synchronism Setting**





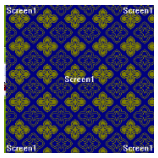
Name: Profile name

Update Name: change the Profile name and click update name to refresh

Add: add one Profile

Del: delete the selected Profile

Exit: Exit **Combination/synchronism Setting**

Soft Screen: set numbers of **Play Window/Simulated Screen** 

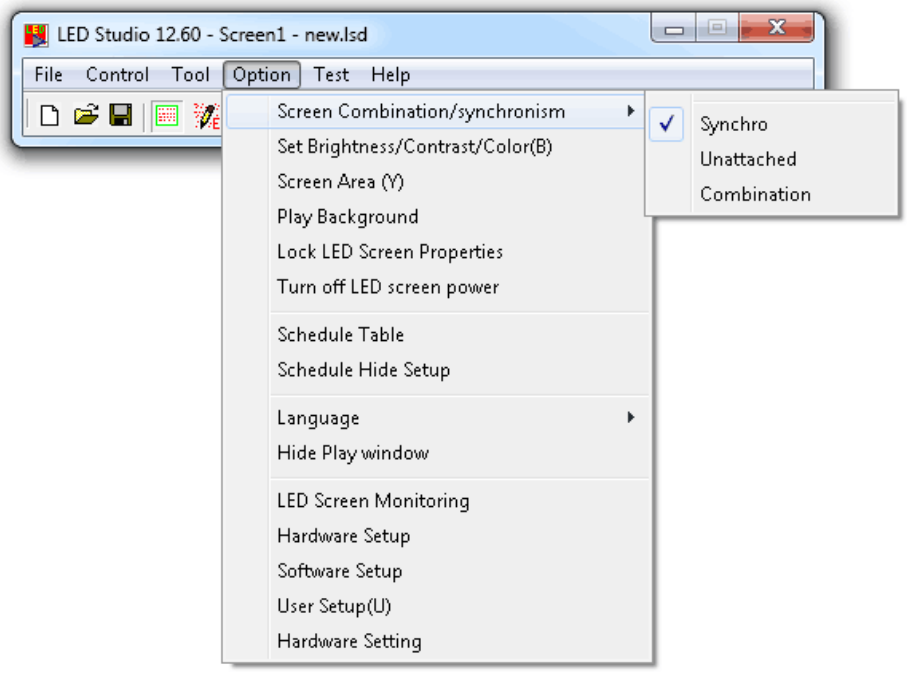
Hardware LED Screen: read the numbers of Led display from **Display Connection**

(one Red rectangle means one Hardware LED Screen)

Start X: set the X position of (X, Y) coordination for the selected Soft Screen of Display

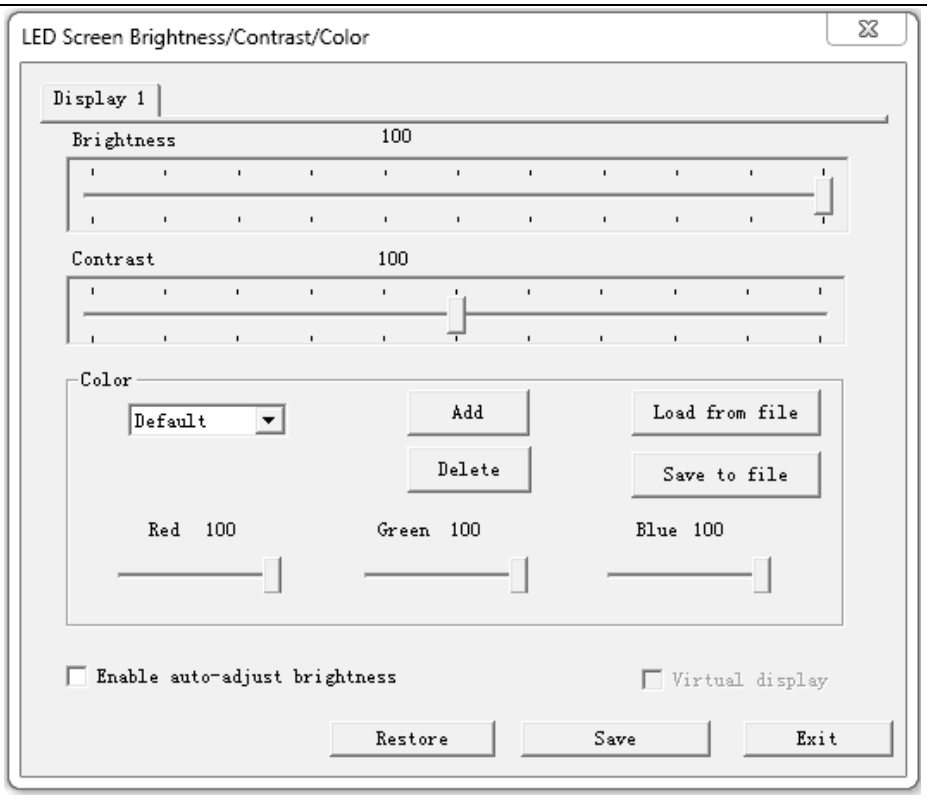
Start Y: set the Y position of (X, Y) coordination for the selected Soft Screen of Display

Now, the preset **Profiles** can be quickly switched.



3. 2. 4. 2 Set Screen Brightness/ Contrast/ Color

Screen Brightness/ Contrast/ Color: manually adjust the selected **Display** brightness, Contrast, Color



Brightness: 0-100, total 101grades manual brightness adjustment

Contrast: 0-100, total 101grades manual contrast adjustment

Color: User Color, each color of RGB has 0-100, total 101grades manual color adjustment; and three preset color choices.

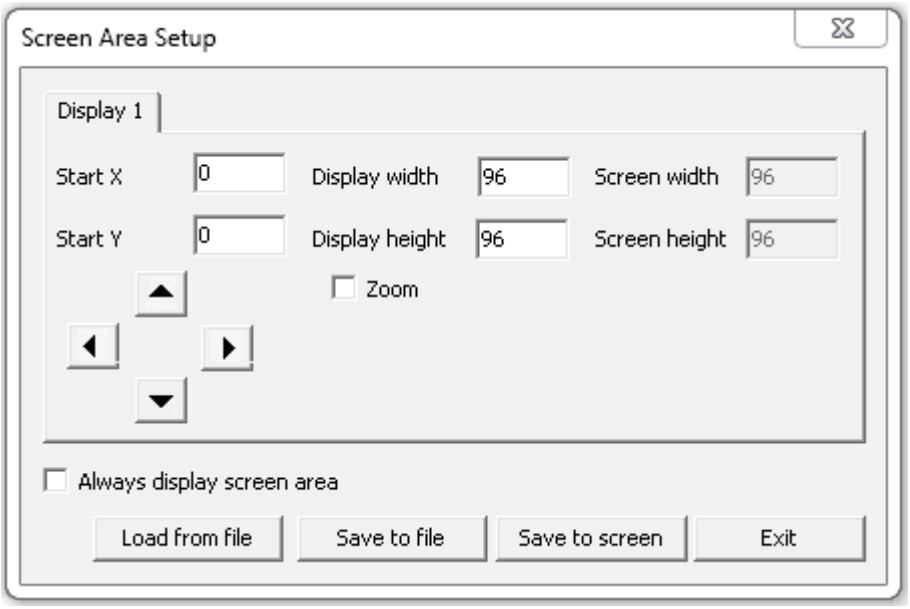
Enable Adjust Bright Auto: Enable if a Function Board is applied for automatic brightness adjustment

Virtual Display: switch between virtual and none-virtual mode for virtual led display. Note: For virtual led display, if **Virtual Display** does not enable, the virtual led display will be considered as real pixel led display, and only has 1/4 of visual size working. For example, a 384*256 virtual led display, will work as 192*128.

3. 2. 4. 3 Screen Area

Screen Area is the area copied to led display. Contents inside the Screen area will be copied to led display.

Note: if the **Screen Area** is gray, go check 3.2.4.12 Hardware Setup Note



Display1/Display2/Display3/Display4: led display name
Start X: set the X position of (X, Y) coordination for screen area
Start Y: set the Y position of (X, Y) coordination for screen area
The arrow icon: adjust the strart X, start Y, by 1 pixel at a time.
Display width: the selected led display width of **Play Window**
Display height: the selected led display height of **Play Window**
Screen width: the width of **selected led display**
Screen height: the height of **selected led display**

Always display screen area: enable this; the screen area/red rectangle will be always visible.

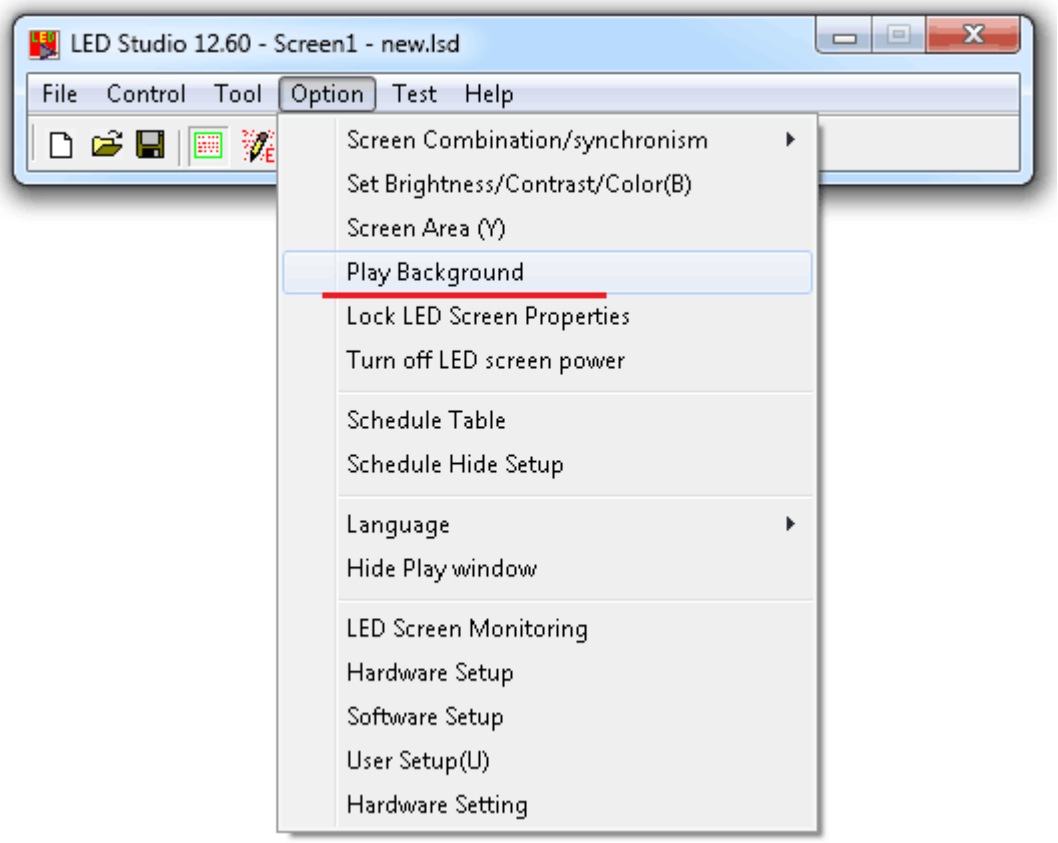
Zoom Display: enable Zooom Display, the Display width and Display height will change from **gray color to editable**.

Set the display width and display height **larger** than the screen width and screen height.

For example:

1. enable Zoom Display
2. set display width 300, and display height 300
3. disable Zoom Display, and eable Zoom Display again, the red rectangle is now 300, 300
4. Click save to screen, the 300, 300 red rectangle contents will be copied and resize to fit the led display of 256,192.

3. 2. 4. 4 Play background/foreground

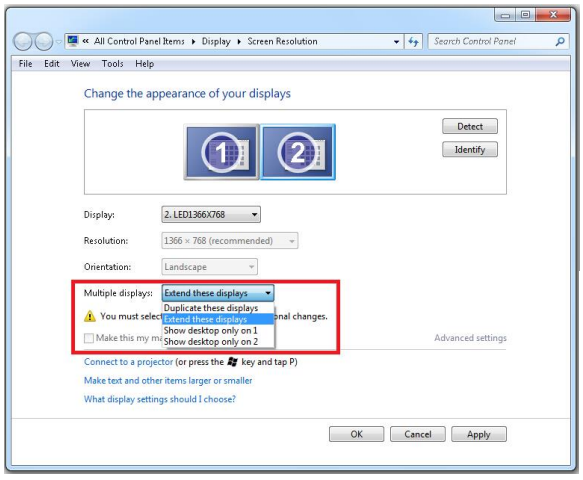


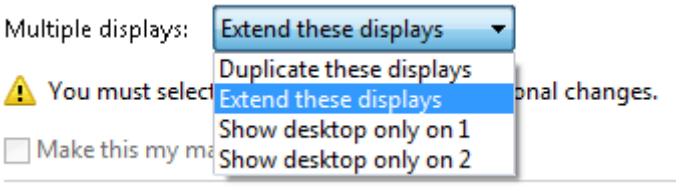
Play background/foreground play: Play background/foreground. Only when you set the graphics card and the sending card to **extended mode** do you need to click **play background.**

1. How to enable Play Background

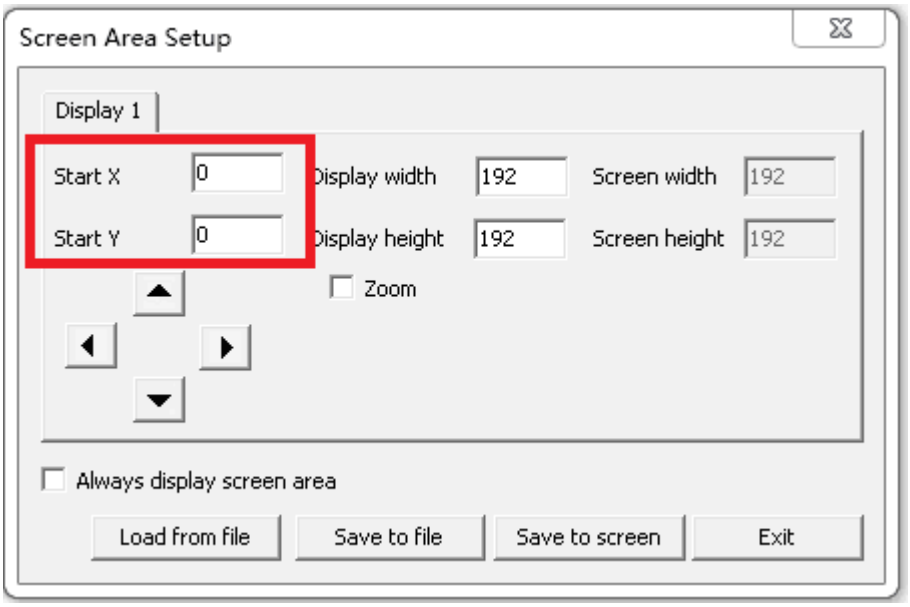
Take a 1366*768 computer monitor for example:

1. set the graphics card in extend mode(In most case, right click on your desktop--choose **screen resolution**(or enter any other page on which you can set the resolution of your monitor)--choose **Extend these displays** option





2. execute foreground play/play foreground is to set the （X,Y）of **Screen Area** to the Start X and StartY of Screen Area preset setting.

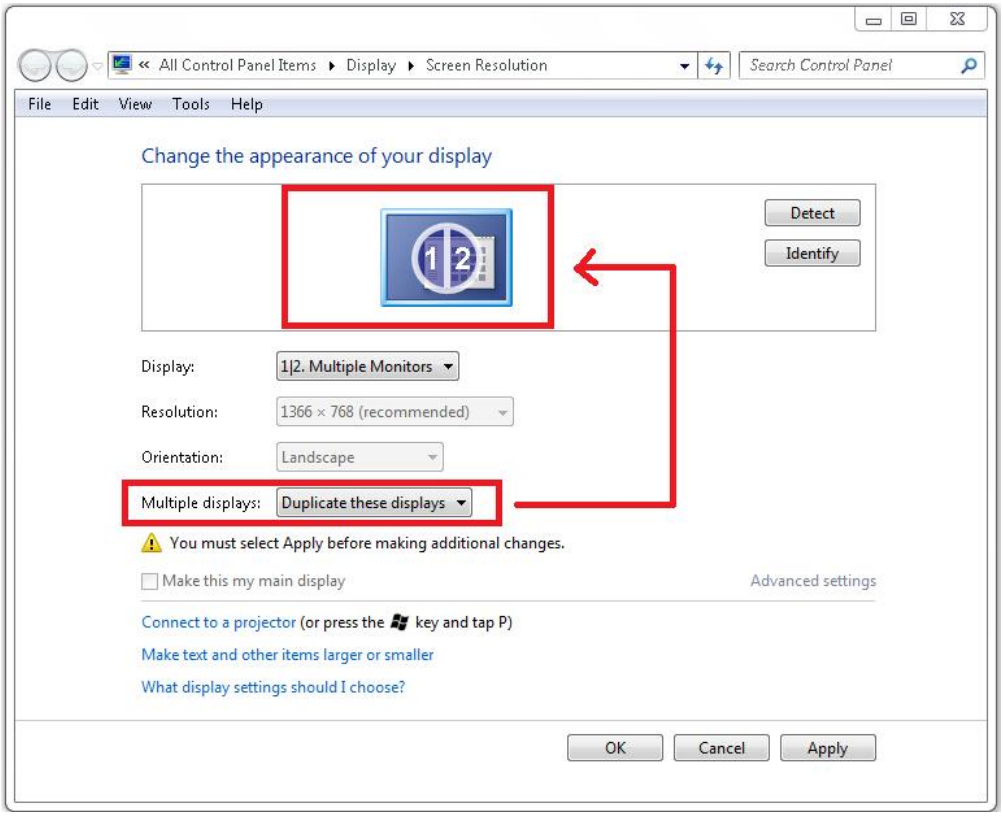


3. Exit foreground play/Play background: set the （X,Y）of **Screen Area** to (1281,0). The **Play Window** will not be seen in the computer monitor.

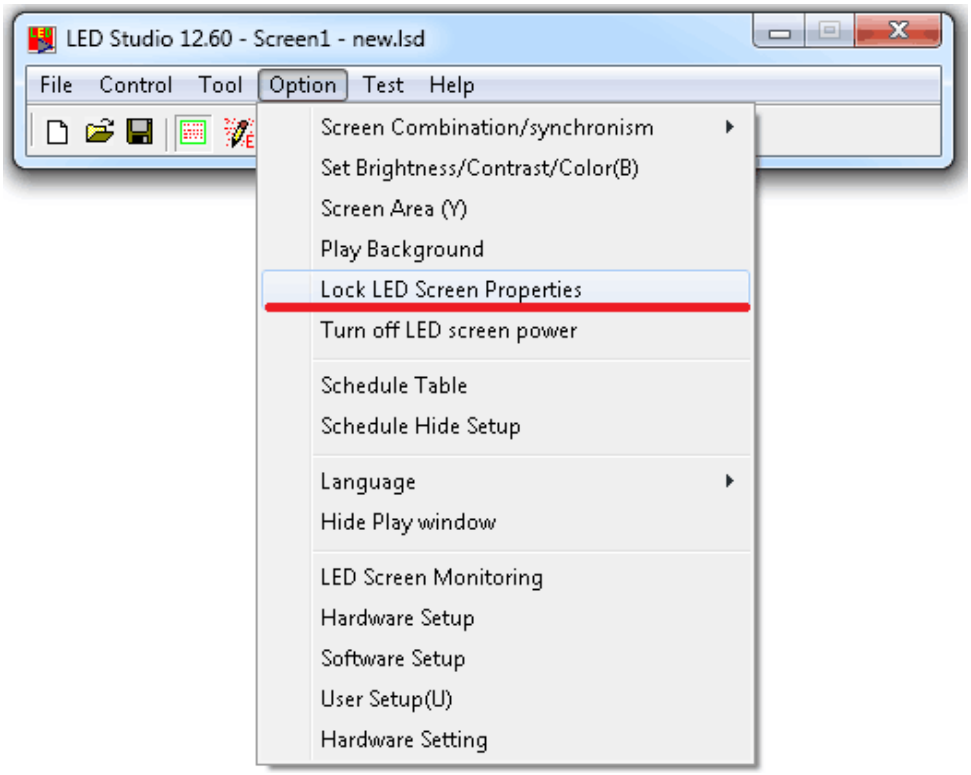
Important: when proceeding **Play Background**, choose **Floating** in Option Menu, Software setup, Play Window. If Lock to LED Screen is selected, Play Window cannot be moved.

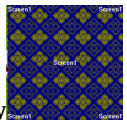
2. How to exit Play Background mode:

1. Select duplicate these displays instead of extend these displays


All Control Panel Items ▸ Display ▸ Screen Resolution
Search Control Panel
File Edit View Tools Help
Change the appearance of your display
Detect
Identify
1 2
Display: 1|2. Multiple Monitors
Resolution: 1366 × 768 (recommended)
Orientation: Landscape
Multiple displays: Duplicate these displays
You must select Apply before making additional changes.
Make this my main display
Advanced settings
Connect to a projector (or press the key and tap P)
Make text and other items larger or smaller
What display settings should I choose?
OK
Cancel
Apply

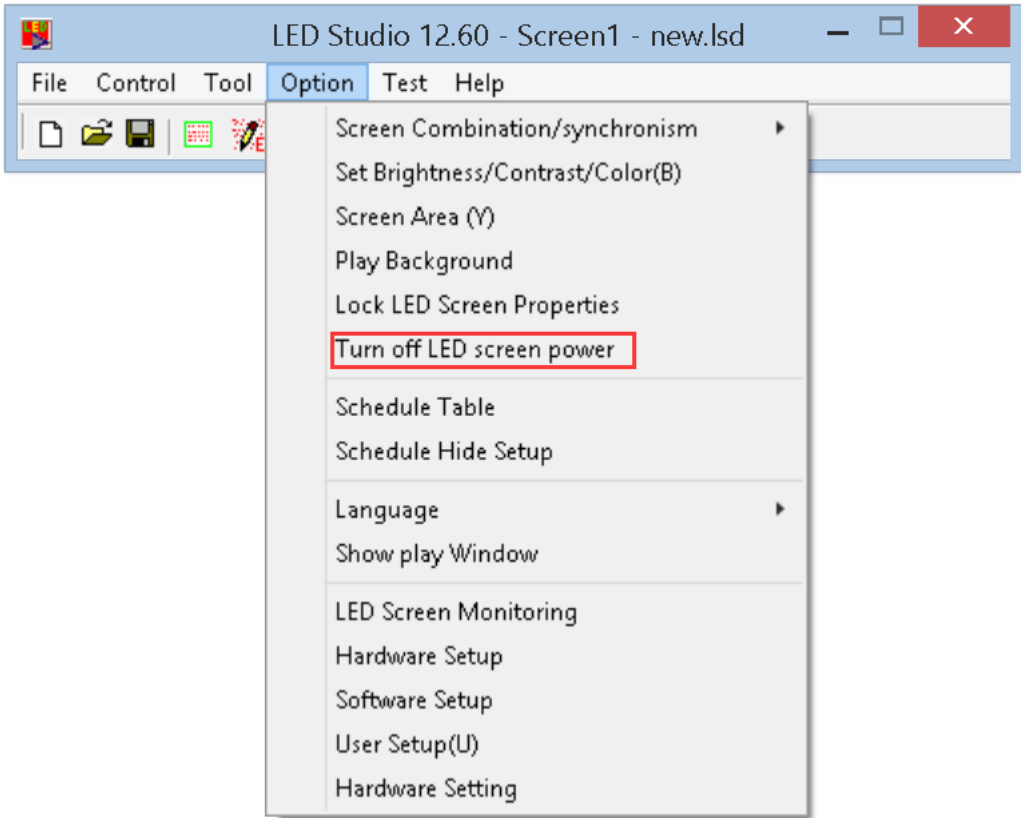
3. 2. 4. 5 Lock/Unlock LED Screen Properties



Lock: freeze-frame on **led display**, and **Play Window**  continues playing.

Unlock: **led display** continues playing synchronously with **Play Window**

3. 2. 4. 6 Turn on/off LED Screen power



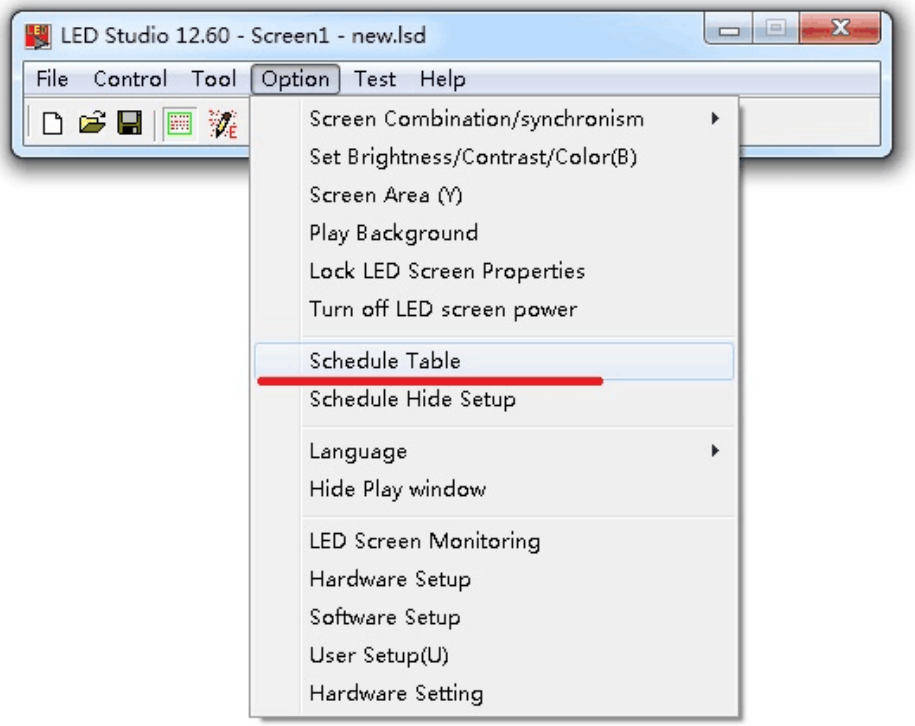
Note: when **Manual** Switch Control is enabled, the **Turn off LED screen power** will automatically disable.

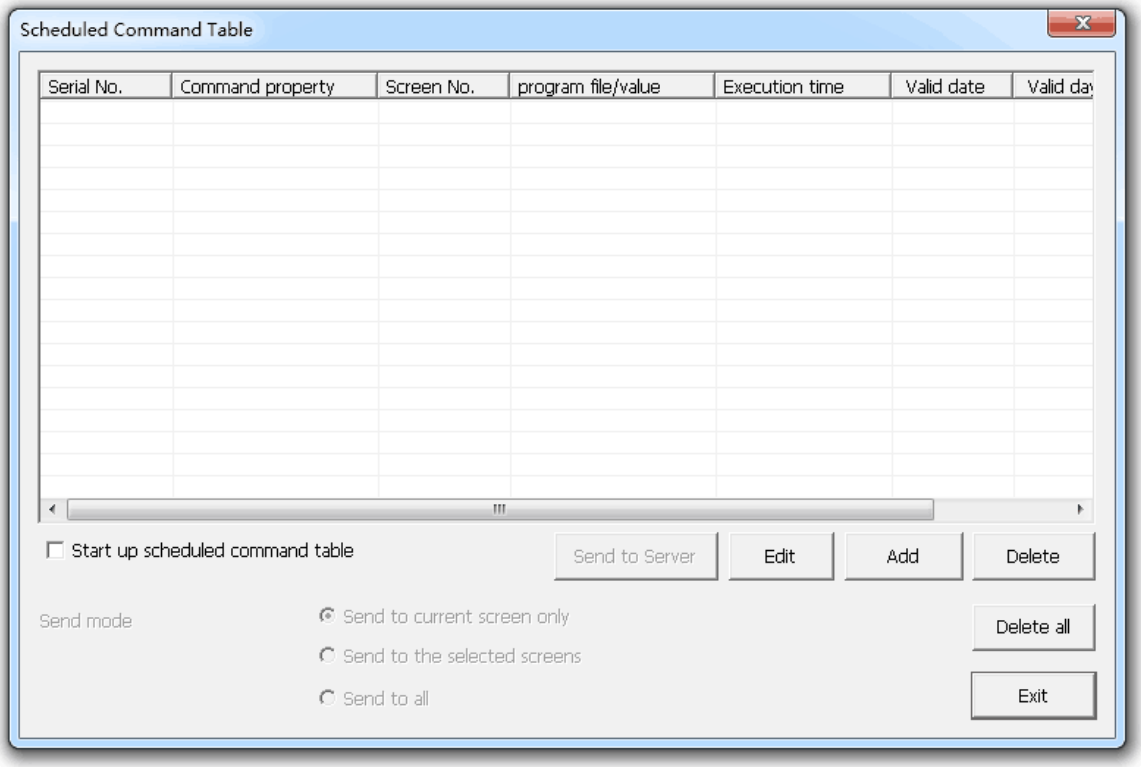
Turn on/off LED screen power: with **Function Board** remote power control applied, this function is for remote turning on/off LED screen power from LedStudio

Without **Function Board** remote power control applied, this function is for turning on/off the sending card signals.

3. 2. 4. 7 Schedule Table

To schedule commands to be carried out. For example, set the led display brightness to a lower value at night time. Or play curtain programs at preset time.





Start up scheduled command: select to **enable** Scheduled Command

Send to Server: applied in **Remote LED Screen Manager Online** mode

Note: Send to Server details, please refer to **Page49**

Send current only: send the **Scheduled Command Table** to the current selected led display

Send by select: select the led display(s) to send the **Scheduled Command Table** to

Send to all: send to all led displays listed in **Remote LED Screen Manager Online**

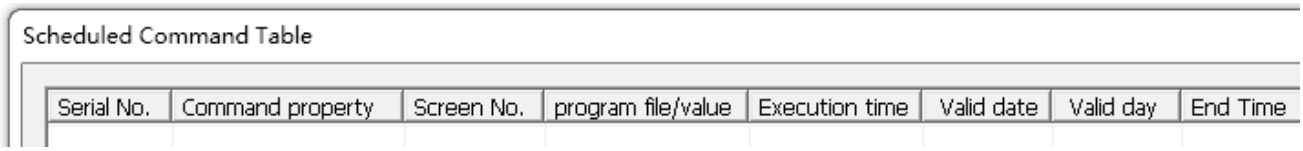
Edit: modify the selected Scheduled Command

Add: add a Scheduled Command

Delete: delete a selected Scheduled Command

Delete all: delete all listed Scheduled Command

Exit: Exit Scheduled Command Table Window



Serial number: the Scheduled Command list number

Command property: the Scheduled Command Name

Screen Number: the led display that the Scheduled Command will take effect on

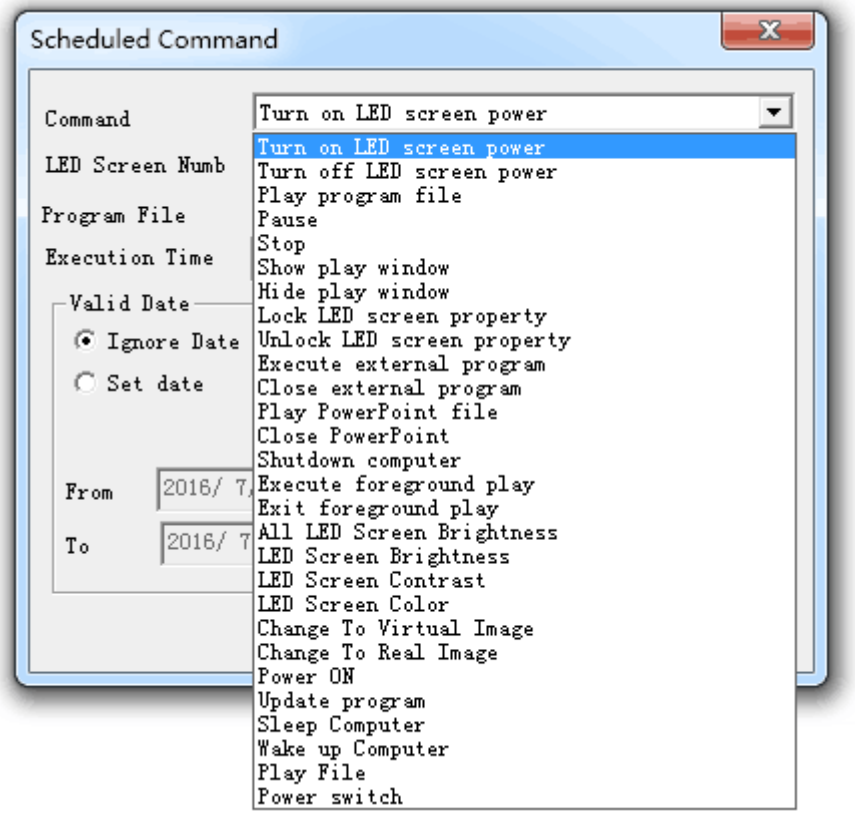
Program file/value: contents of the Scheduled Command

Execution time: time for the Scheduled Command to take effect

Valid date: time period that the Scheduled Command will take effect

Valid day: day (Monday to Sunday) the Scheduled Command will take effect

Click Add button you will see the below window:

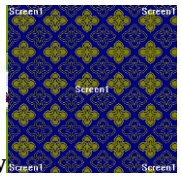


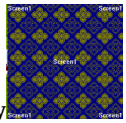
Turn on/off LED screen power: with **Function Board** remote power control applied, remote turn on/off LED screen power from LedStudio

Without **Function Board** remote power control applied, turn on/off the sending card signals.

Play program file: .lsd file

Pause, stop: pause or stop at the execution time

Show/Hide play window: show or hide the **Play Window** 

Lock LED screen property: freeze-frame on **led display**, and **Play Window**  continues playing.

Unlock LED screen property: **led display** continues playing synchronously with **Play Window**

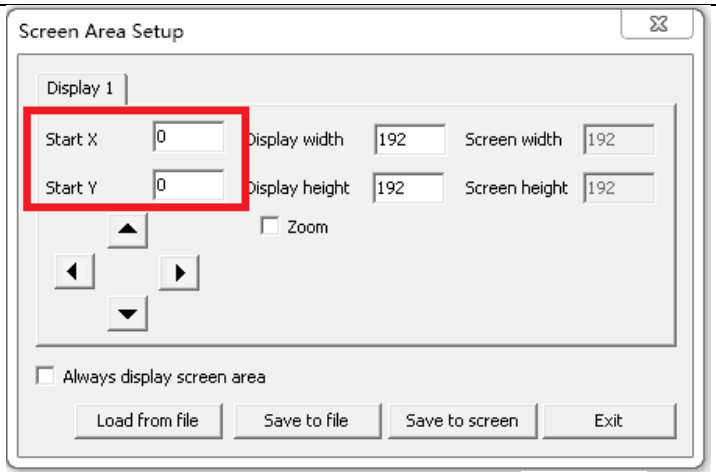
Execute/close external program: run or quite external .exe program in LedStudio **Play Window** (the .exe program should be tested and it works in LedStudio)

Play/close PowerPoint file: start or close powerpoint file

Shutdown computer: turn off the computer

Execute/Exit foreground play: Play background/foreground**.** Take a 1280*768 computer monitor for example:
Set the Graphic card in extended mode;

execute foreground play/play foreground is to set the （X,Y）of **Screen Area** to the Start X and StartY of Screen Area preset setting.



Exit foreground play/Play background: set the （X,Y）of **Screen Area** to (1366,0). The **Play Window** will not be seen in the computer monitor.(take the resolution of your monitor is 1366*768 for example)

LED Screen Brightness: adjust the led display brightness.

0-100, total 101grades manual brightness adjustment

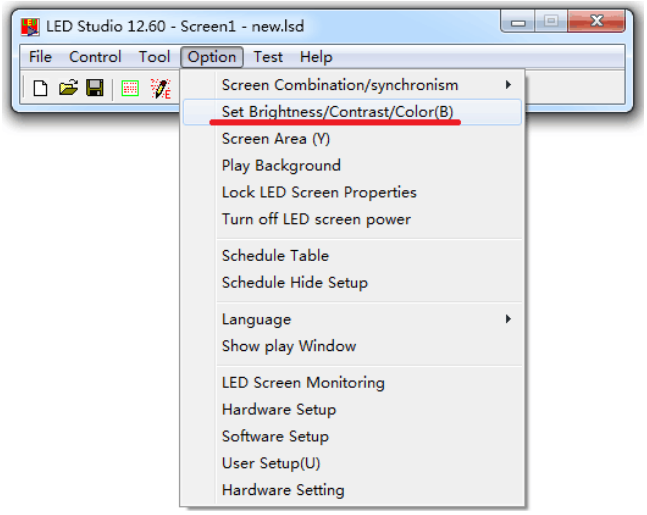
All LED Screen Brightness: adjust all the led display brightness

0-100, total 101grades manual brightness adjustment

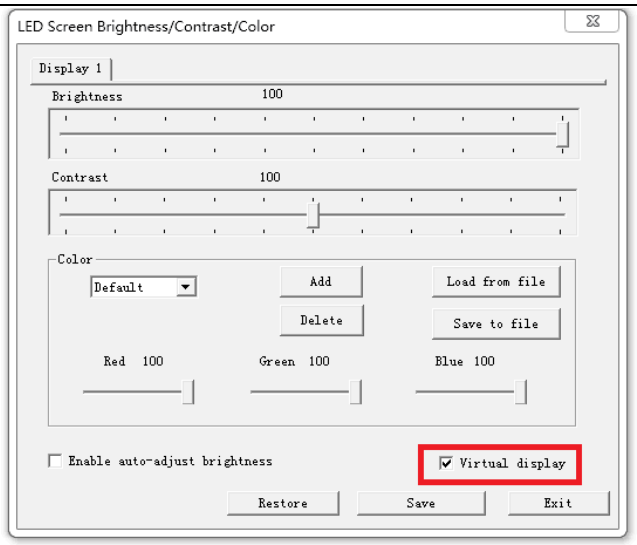
LED Screen Contrast: adjust the led display contrast.

0-100, total 101grades manual contrast adjustment

LED Screen Color: switch among the color temperature of **User Color**（0）， **9300K**（1）, **6500K**（2）, **5000K**（3）. Please refer to Set Brightess/Contrast/Color



Change to Virtual/Real Image: switch between virtual and none-virtual mode for virtual led display (when playing letters on virtual led display, better visual quality in real mode) refer to Virtual Display in Option, Set Brightess/Contrast/Color



Note: For virtual led display, if **Virtual Display** does not enable, the virtual led display will be considered as real pixel led display, and only has 1/4 of visual size working. For example, a 384*256 virtual led display, will work as 192*128.

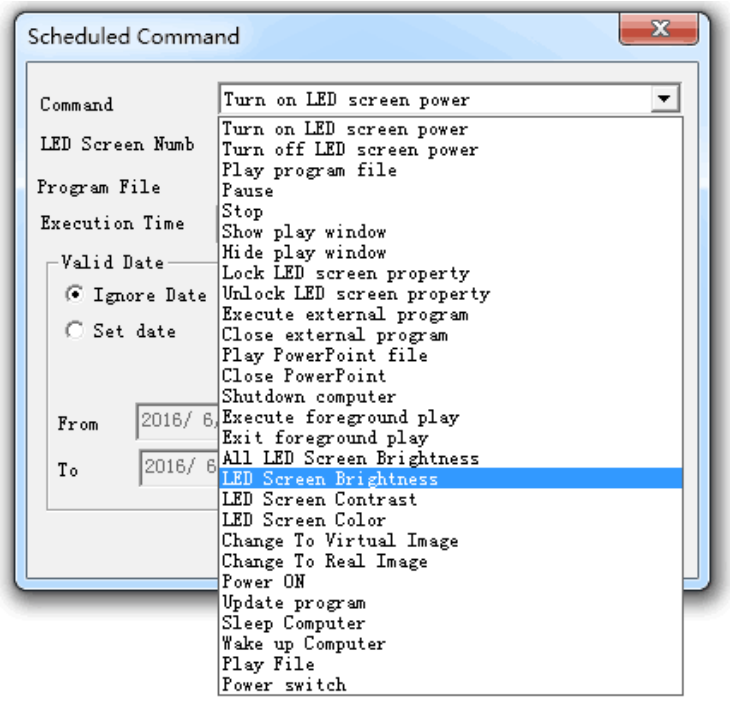
Power on: turn on computer

Update program: update program from server

Sleep computer: put the computer in sleep mode

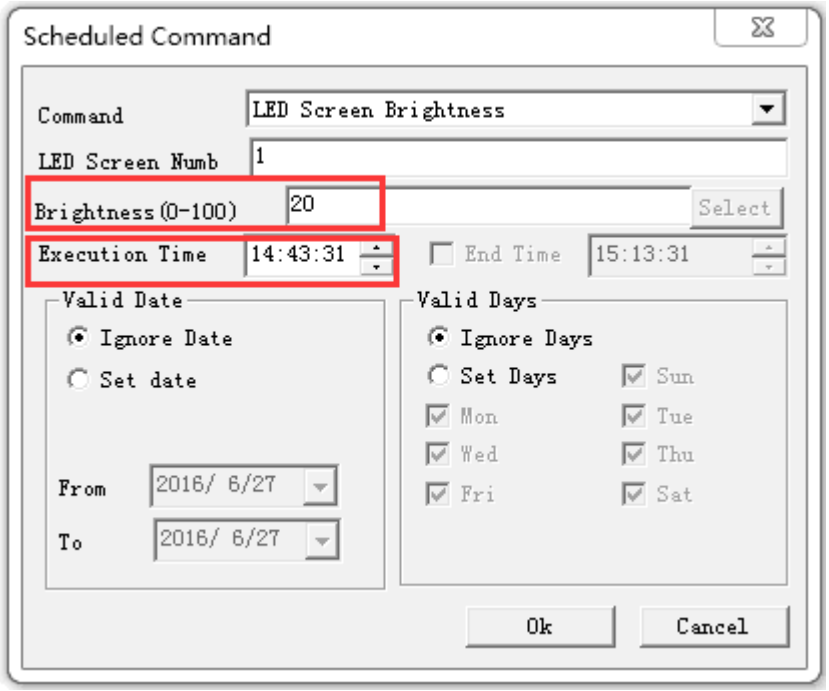
Wake up computer: wake up the computer from sleep mode

Example for creating a Schedule command



Click the Add button, the above interface will pop up, choose the option you need to set in the command properties drop-down list.

Take adjusting brightness for example



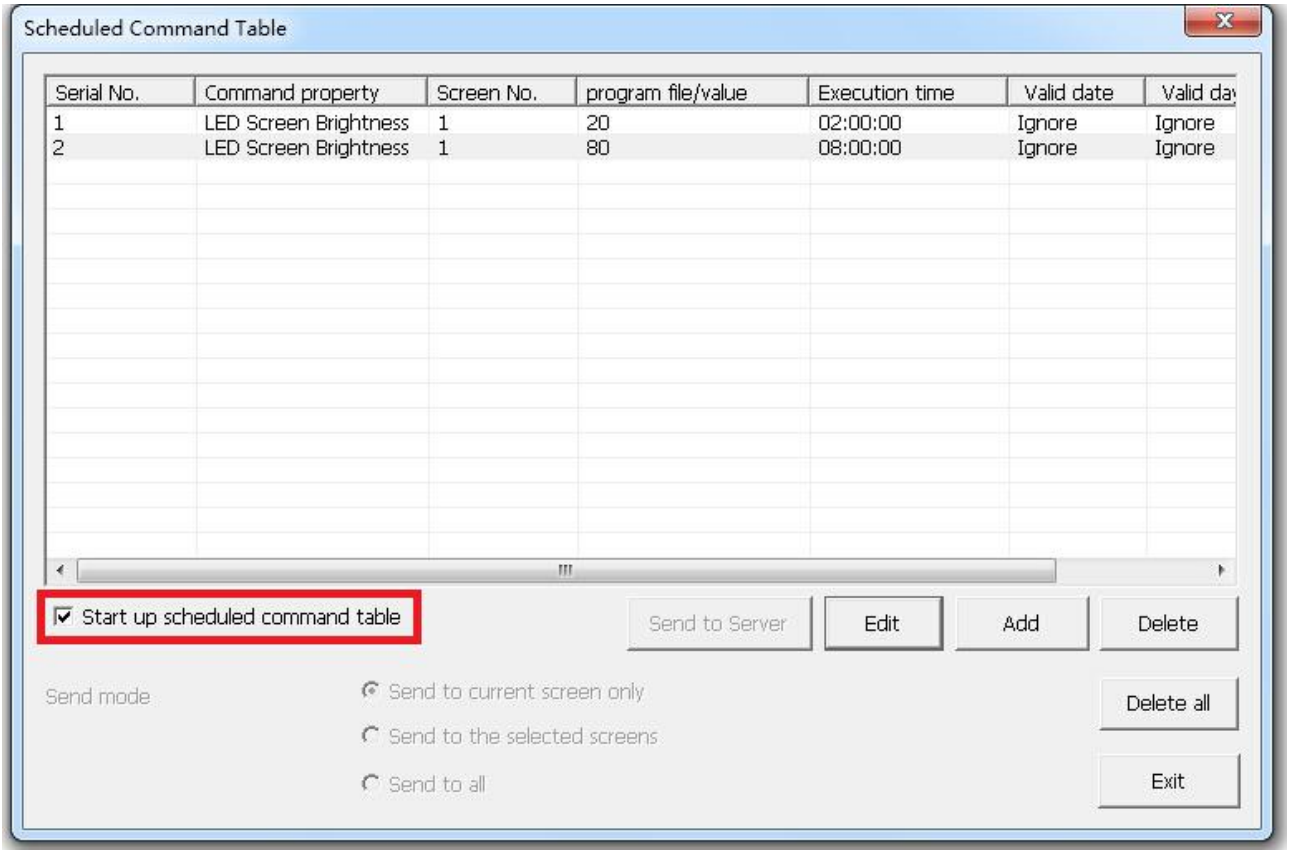
Select LED Screen Brightness in the Command option, input the the value of the brightness you need to adjust to, and set a Execution time.

Note. (The End Time option is gray out for the brightness setting)You can only set the brightness value at a certain time, after that the brightness would be the same as the one you set all the time.

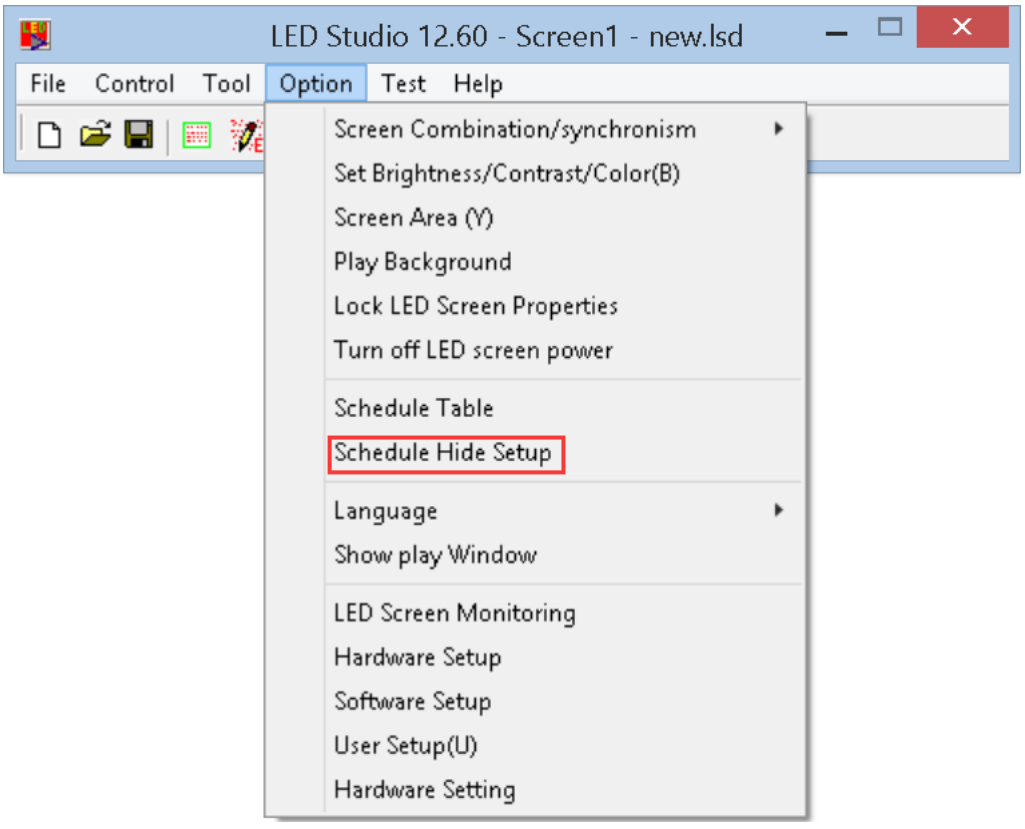
If you want to set the brightness of the led screen to 20 during 3am to 8am, you need to set two command. First set the brightness to 20 at 3:00, and set the brightness to other value at 8:00am.

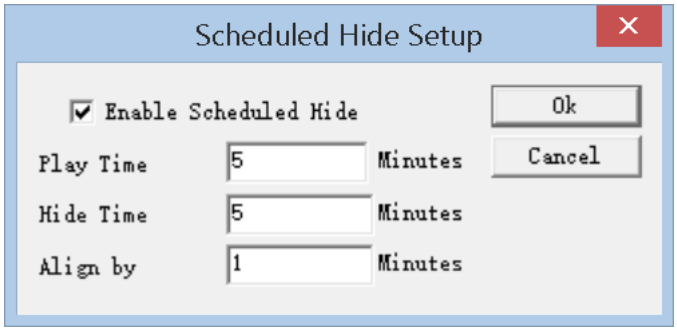
In the schedule table, you can also set the certain period for the option by selecting set date or set days.

After you set all the command, please choose the **start up scheduled command table option to enable the function**



3. 2. 4. 8 Schedule Hide Setup





Enable Scheduled Hide: enable/disable Scheduled Hide

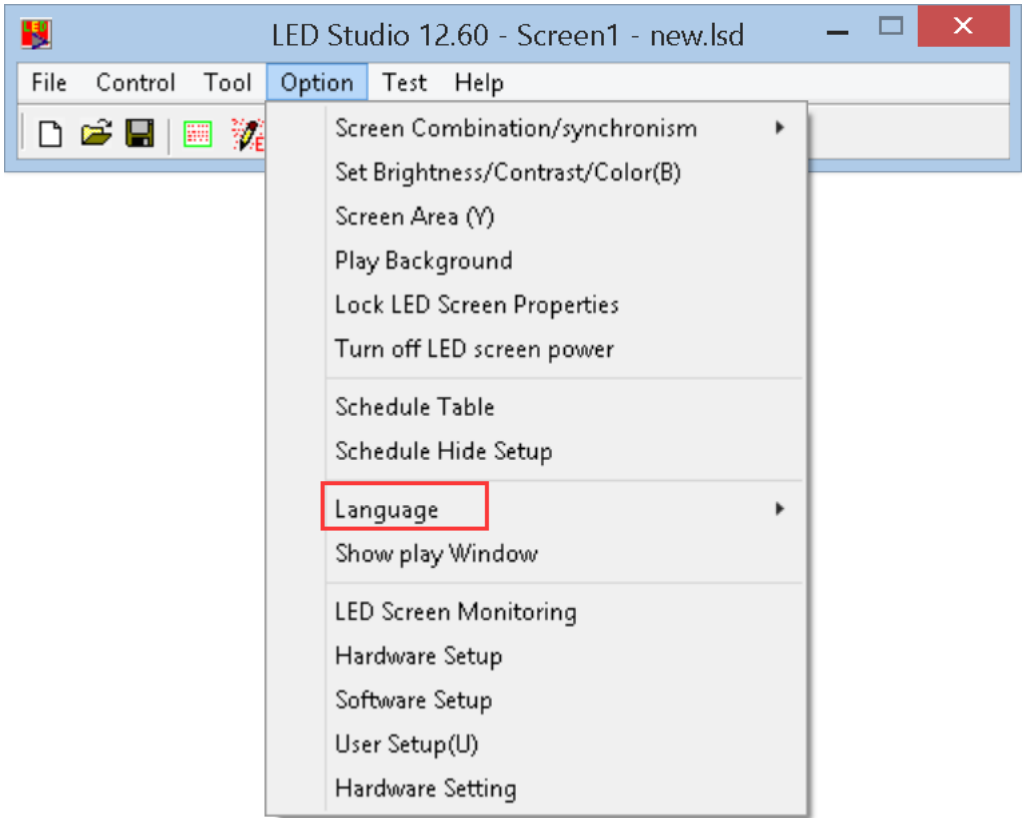
Play Time: show-up time duration for **Play Window**

Hide Time: hidden time duration for **Play Window**

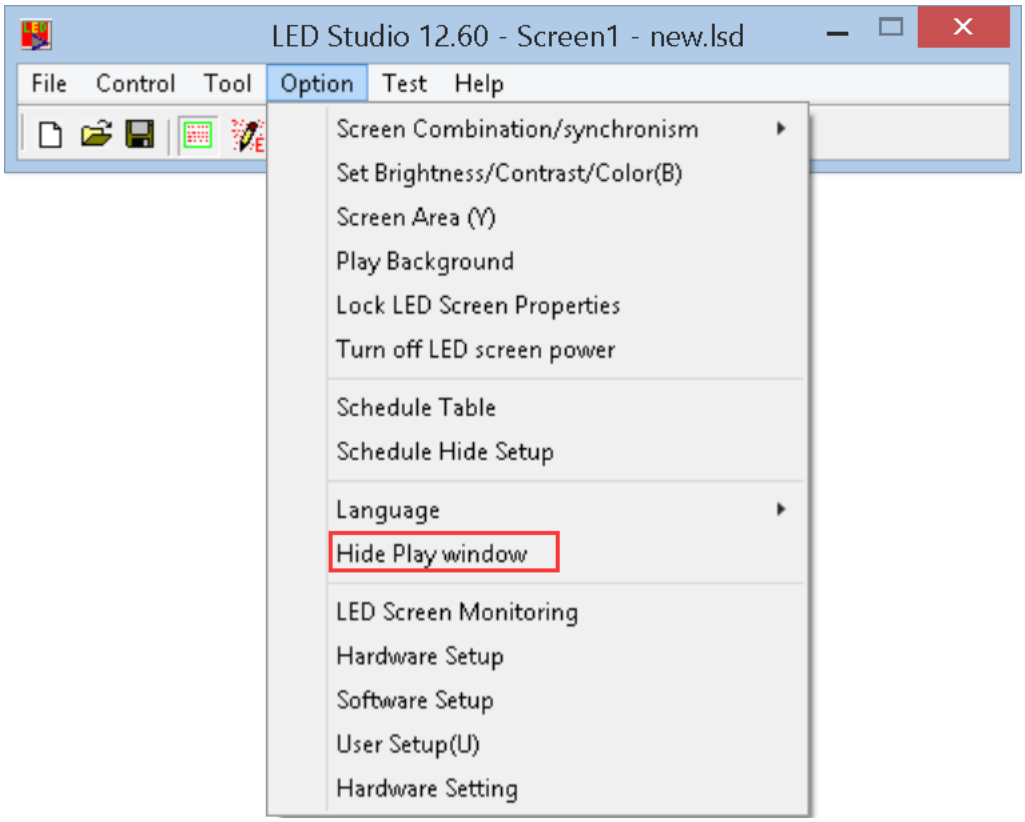
Align by: time moment to trigger Hide Time. For example, Align by 11 Minutes means 0, 11, 22, 33, 44, 55minute within an hour will activate the Hide Time. After Hide Time, it is Play Time.

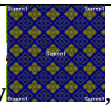
3. 2. 4. 9 Language

Change the LedStudio interface language. Ledstudio supports many interface languages, including: Simplified Chinese, Traditional Chinese, English, French, Japanese, Korean, Russian, Thai, Spanish, Polish, Italian, Portuguese, Turkish, Dutch, Greek, Bulharian, Arabic, Romanian and Deutsch.



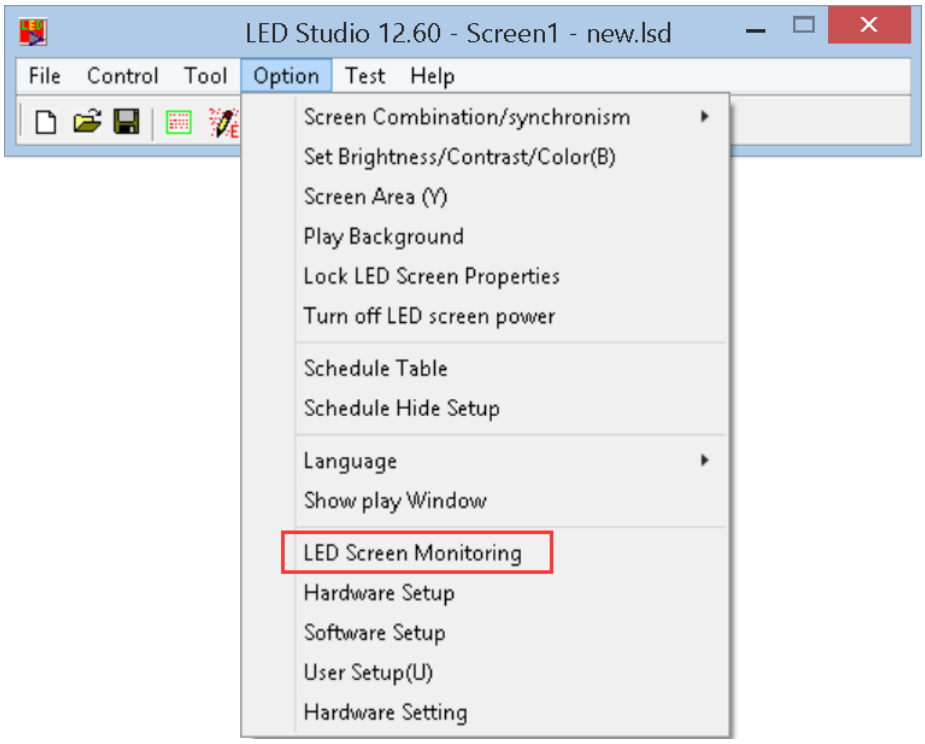
3. 2. 4. 10 Hide/Show Play Window



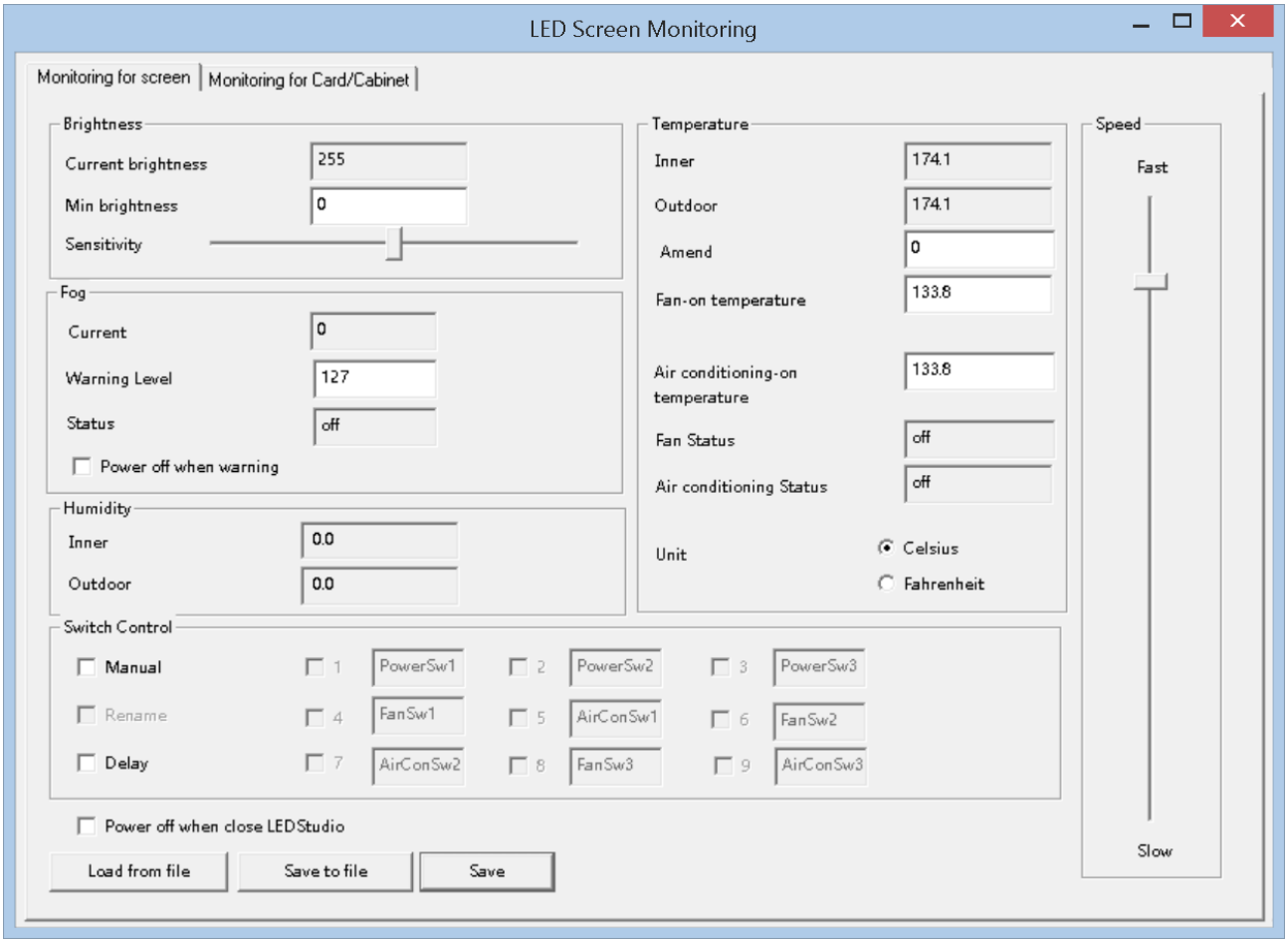
Hide Play Window: Hide the **Play Window**  , **led display** will show the part of computer desktop (desktop within the Screen Area)

3. 2. 4. 11 LED Screen Monitoring

LED Screen Monitoring is control panel of Function Board/Card.



Monitoring Settings



Brightness:

Current Bright: the current brightness read by external light sensor in **Function Board**

Min Bright: set the minimum brightness for auto- adjust brightness

Sensitivity: set the sensitivity value for light sensor

Fog

Current: Current value

Warning Level: warning value

Statues: on/off

Power off when warning: if enable, power relays on **Function Board** will be disconnected when warning level reaches warning value.

Humidity:

Inner: Internal Humidity Value

Outdoor: External Humidity Value

Temperature:

Inner: the temperature value detected by internal temperature sensor

Outdoor: the temperature value detected by External temperature sensor

Amend: if detected temperature differs from the environment temperature, amend the value.

Fan-on temperature： Set the temperature value to activate the fan relays of **Function Board**. Temperature is detected by internal temperature sensor

Air conditioning-on temperature: Set the temperature value to activate air condition. Temperature is detected by internal temperature sensor

Fan Status: on/off

Air conditioning status: on/off

Switch Control

Manual: Manually switch on/off the power relays

Rename: rename the names of power relays

Delay: when switch on/off the power relays, it delays 1 to 4 seconds.

Power off when close LEDStudio: if ticked, power replays will be switched off when the LEDStudio is closed t

Save to file: save settings as a .dat file

Load from file: load the settings from saved .dat file

Monitor card/box: read and show feedback data from every receiving card

Temperature: Temperature value

Humidity: humidity value

Smog: the status of smog

Brightness: the brightness value

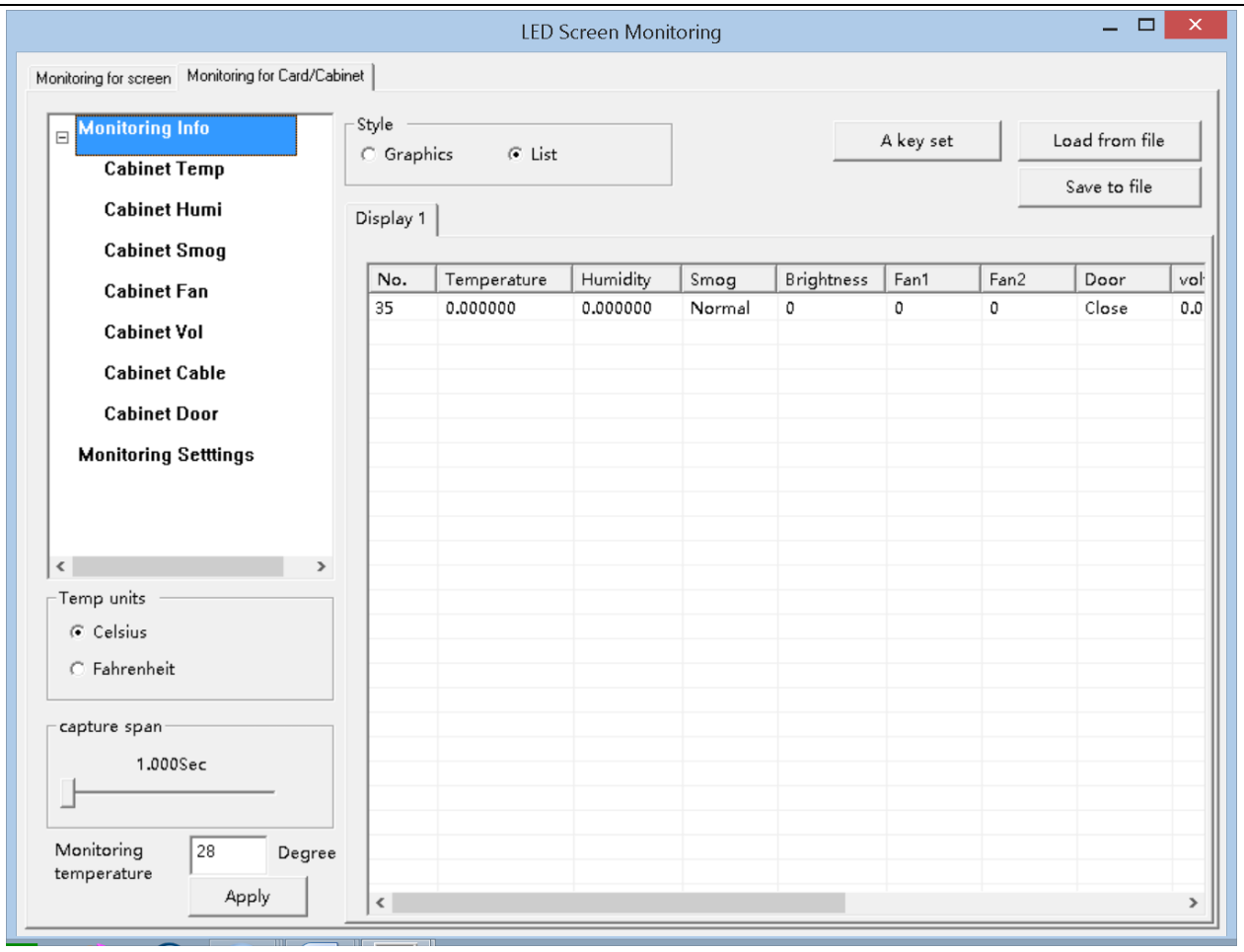
Fan1/Fan2: status of fan. 0 for off, 1 for on

Door: the status of cabinet's door

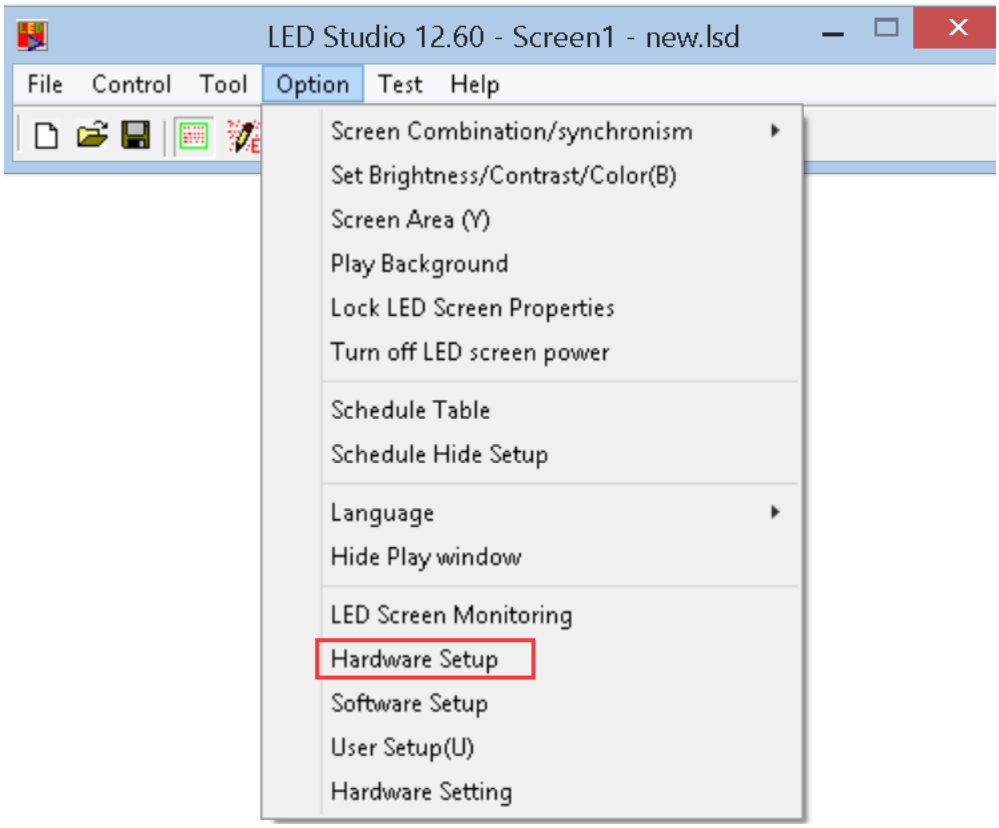
Voltage: the value of voltage

Unit: show value of temperature in Celsius or Fahrenheit

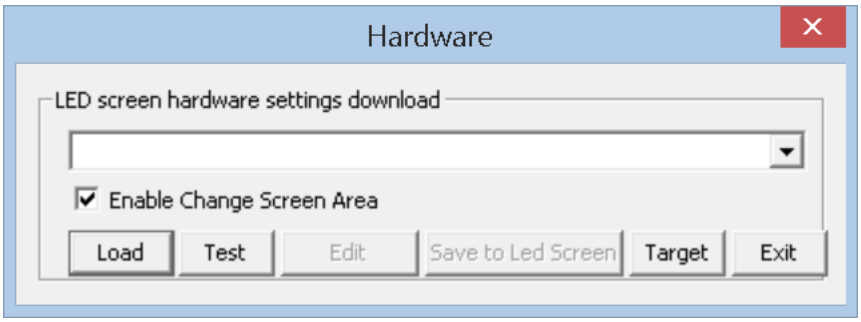
Monitoring temperature: set temperature value for monitoring


LED Screen Monitoring
Monitoring for screen
Monitoring for Card/Cabinet
Monitoring Info
Cabinet Temp
Cabinet Humi
Cabinet Smog
Cabinet Fan
Cabinet Vol
Cabinet Cable
Cabinet Door
Monitoring Setttings
Style
Graphics
List
A key set
Load from file
Save to file
Display 1
No.
Temperature
Humidity
Smog
Brightness
Fan1
Fan2
Door
35
0.000000
0.000000
Normal
0
0
0
Close
Temp units
Celsius
Fahrenheit
capture span
1.000Sec
Monitoring temperature
28
Degree
Apply

3. 2. 4. 12 Hardware Setup



Hardware Setup: to send **.CON** file (Display Connection setting file) and **.RCG** file (led display Driver for receiving card) to receiving cards

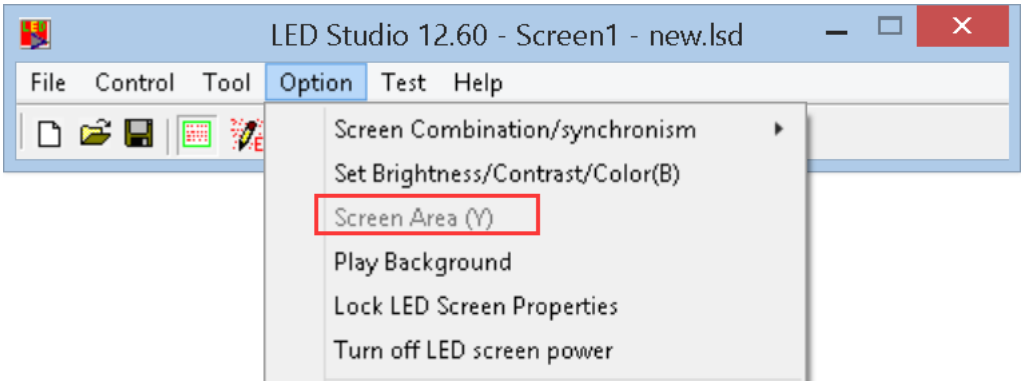


Load: to select the correct .CON file

Test: test the selected .CON file on receiving cards

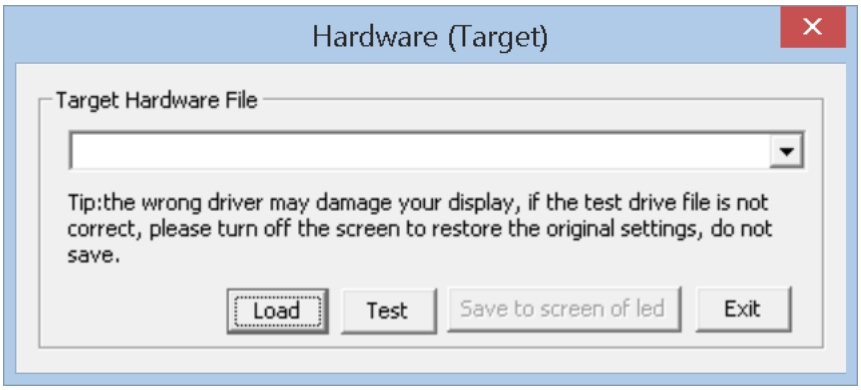
Enable Change Screen Area: allow the .CON file to change the size of Screen Area

Note: if Enable Change Screen Area is not ticked. The **Screen Area** will be Gray color as following screen shot.



Save to Led Screen/led display: test before saving the .CON is required. If test result is correct, save to flash memory of receiving cards

Target: activate the window for uploading .RCG file

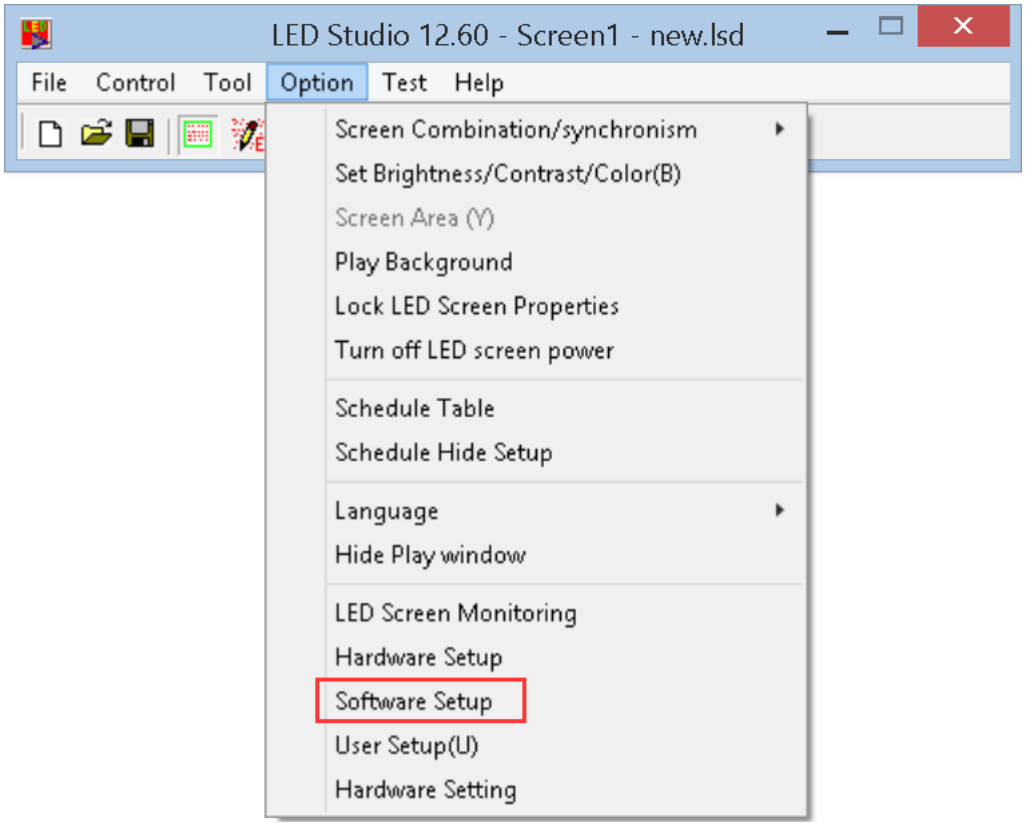


Load: to select the correct .RCG file

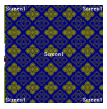
Test: test the selected .RCG file on receiving cards

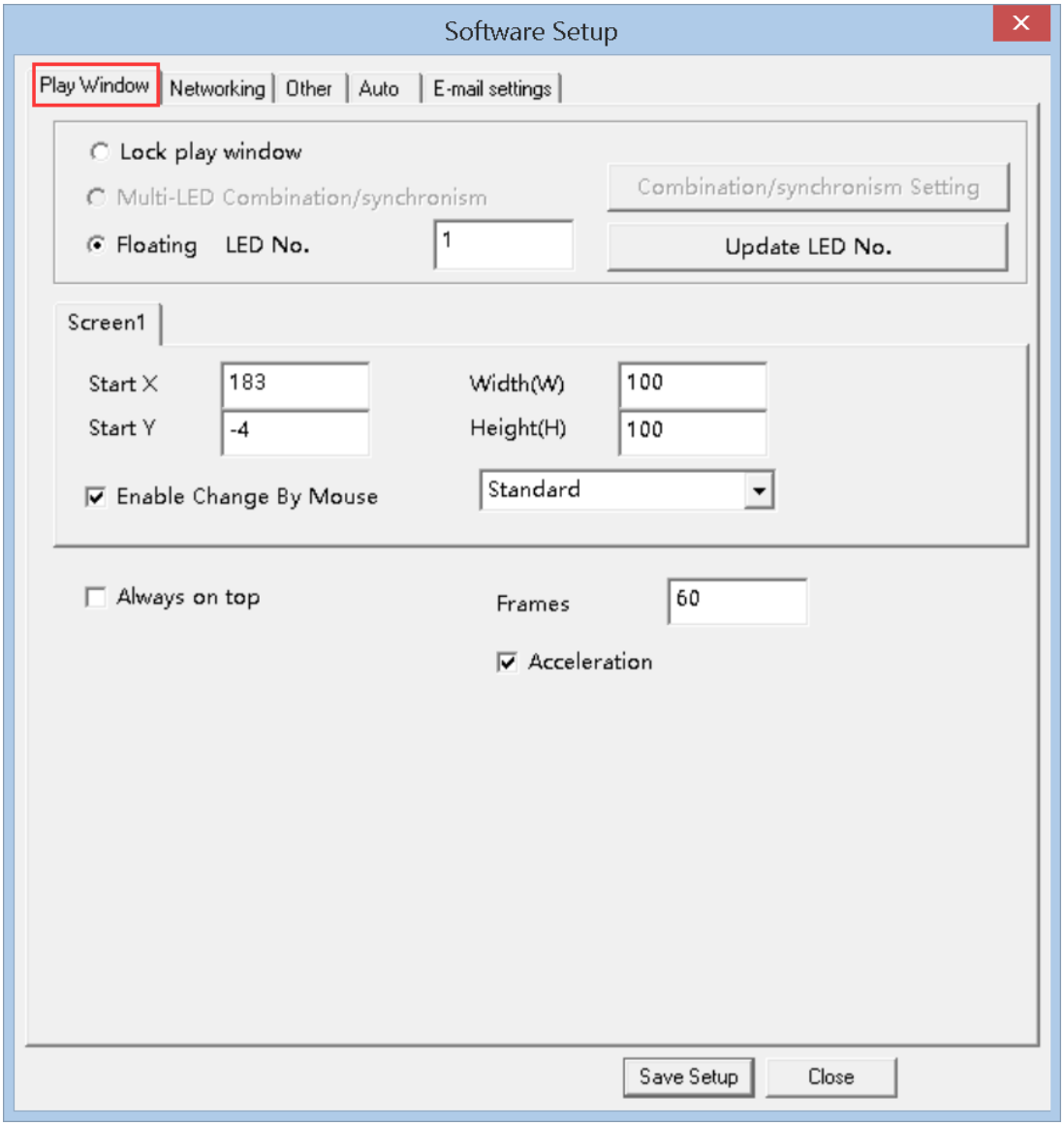
Save to screen of led: test before saving the .RCG is required. If test result is correct, save to flash memory of receiving cards

3. 2. 4. 13 Software Setup



3.2.4.13.1 Play Window

Play Window Setting: 

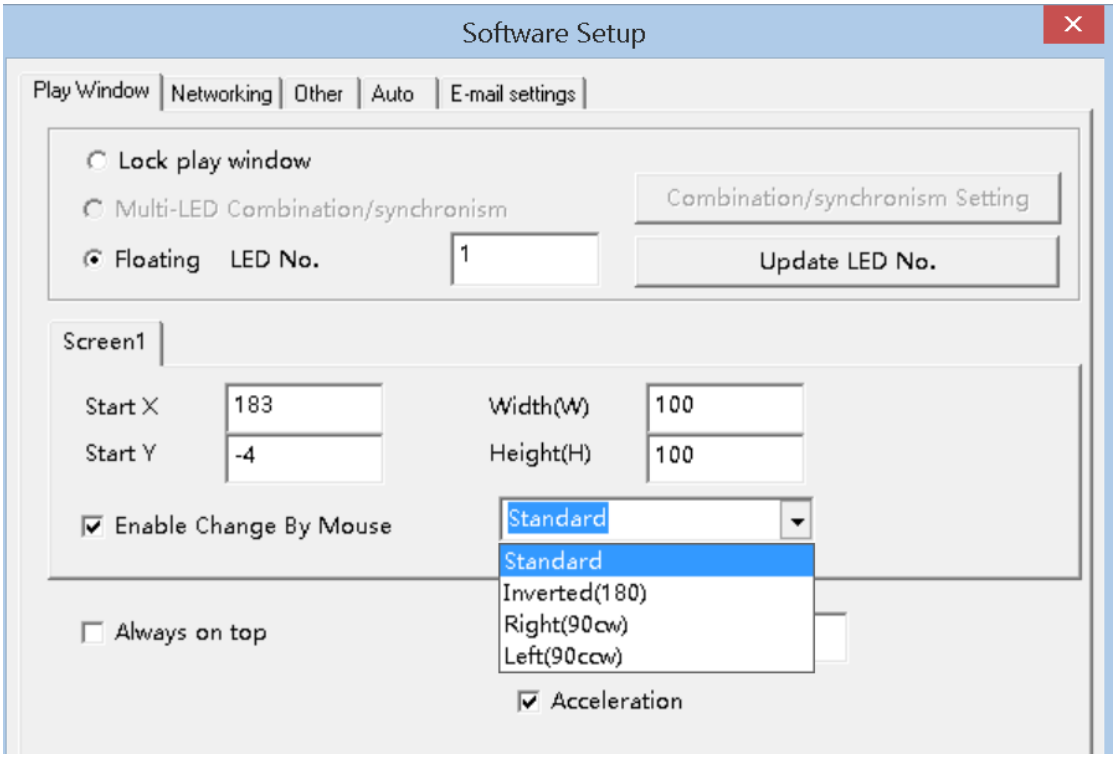


Always on top: if enable , **Play Window** will always on top

Frames: Set frames per second

Accelerator: enable accelerator

Save Setup: save settings of **Play Window**



Standard

Inverted (180)

Right (90cw)

Left (90cw)

3.2.4.13.1.1 Lock to LED Screen

Lock to LED Screen: different from **Lock LED Screen Properties**.

It sets:

1. all Play Windows at (0, 0) position, and can't be edited
2. Size same as **Display Connection setting**. All **Play Windows** are locked so cannot be dragged by mouse.

3.2.4.13.1.2 Floating

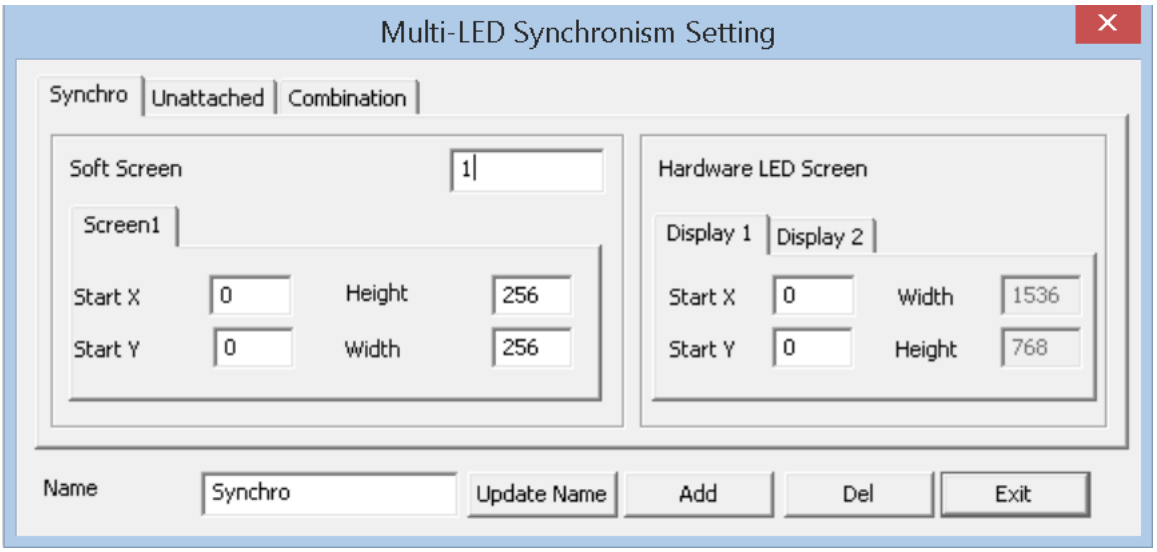
Floating: Play Window can be adjusted at

1. The quantity of Play Windows, in **LED Numb**, set **Play Window** quantity, click **Update LED Numb**
2. Start X, Start Y, of each **Play Window** (Screen1/Screen2…)
3. Size of each **Play Window**
4. **Enable Change by Mouse**: the Size, Position of each **Play Window** can be adjusted by mouse

3.2.4.13.1.3 Multi-LED Combination/synchronism

Multi-LED Combination/synchronism: set Profiles for **Screen Combination/synchronism.** Please refer to **Screen Combination/synchronism (3.2.4.1). Note: Display QDY in Display Connection should be 2 or more.**

Select Multi-LED Combination/synchronism. Click **Combination/synchronism Setting**



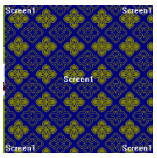
Name: Profile name

Update Name: change the Profile name and click update name to refresh

Add: add one Profile

Del: delete the selected Profile

Exit: Exit **Combination/synchronism Setting**

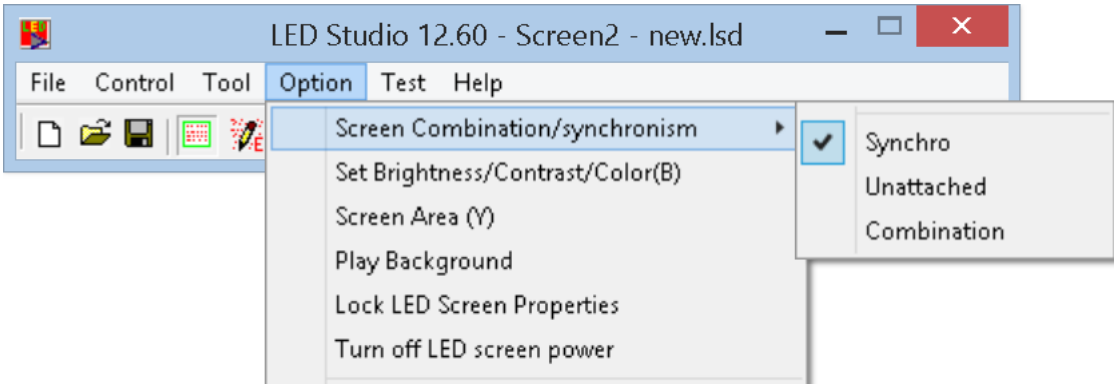
Soft Screen: set numbers of **Play Window/Simulated Screen** 

Hardware LED Screen: read the numbers of Led display from **Display Connection** **(one Red rectangle means one Hardware LED Screen)**

Start X: set the X position of (X, Y) coordination for the selected Soft Screen of Display

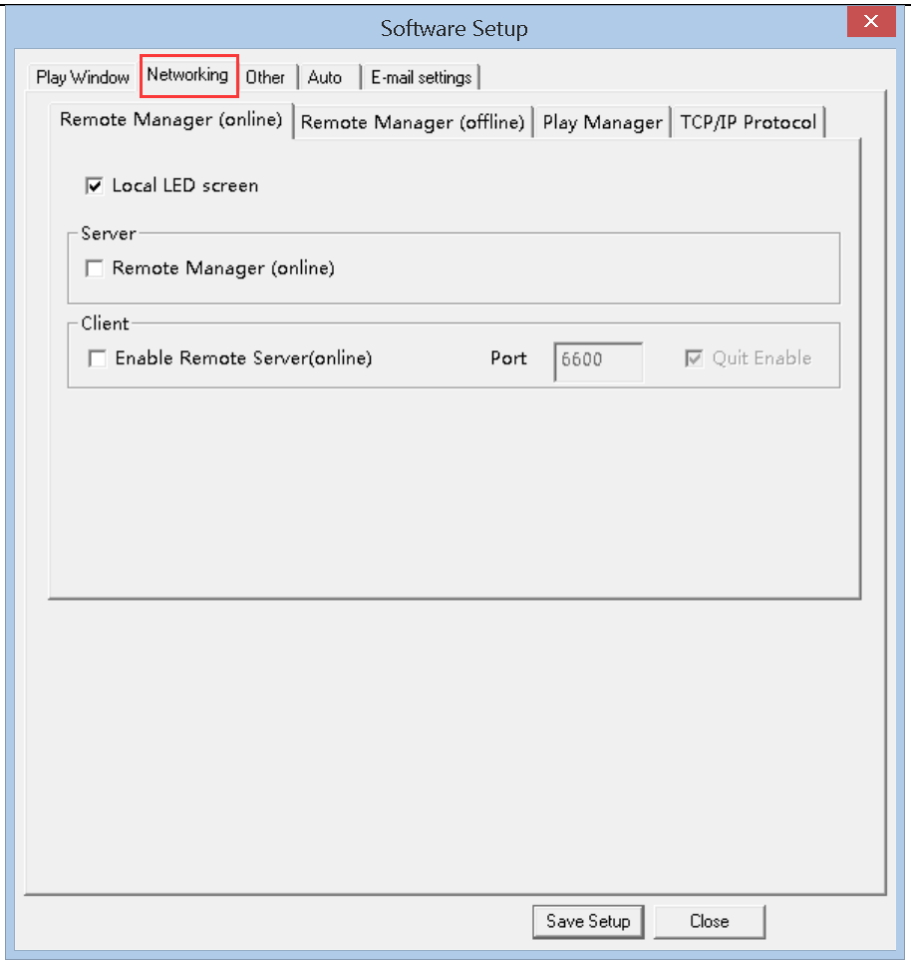
Start Y: set the Y position of (X, Y) coordination for the selected Soft Screen of Display

Now, the preset **Profiles** can be quickly switched.



3.2.4.13.2 Networking

Networking setting is used for the remote control of led display (computer).



3.2.4.13.3.1 Online/real time remote control

1. Define

Online remote control/real time remote control: allow the **Client Computer** to fully control the LEDStudio on the **Server Computer**.

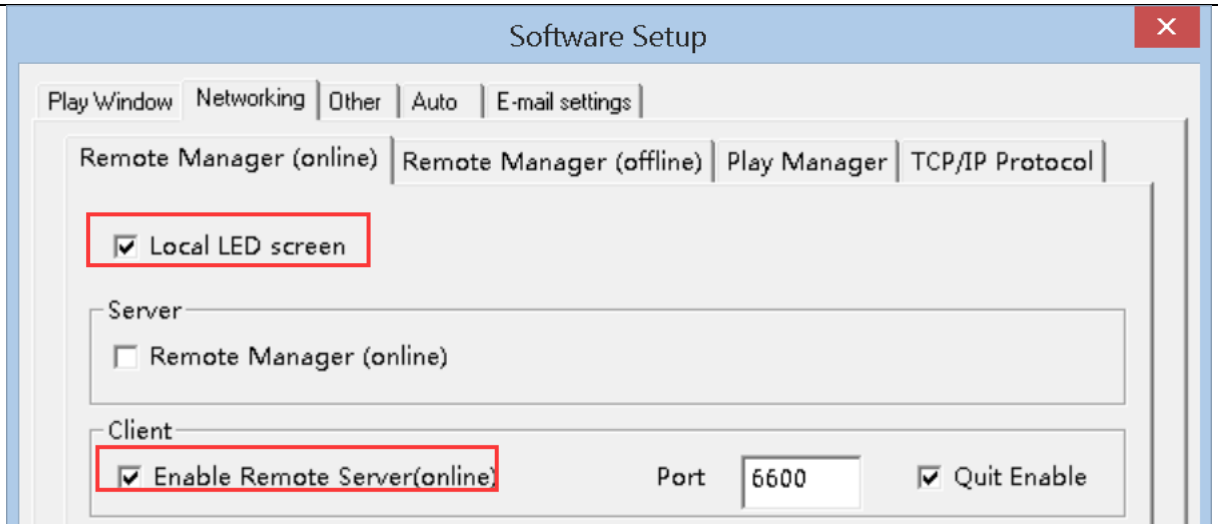
Computer that directly connects to the **led display** is **Server Computer**

Computer that remotely controls the **Server Computer** is **Client Computer**

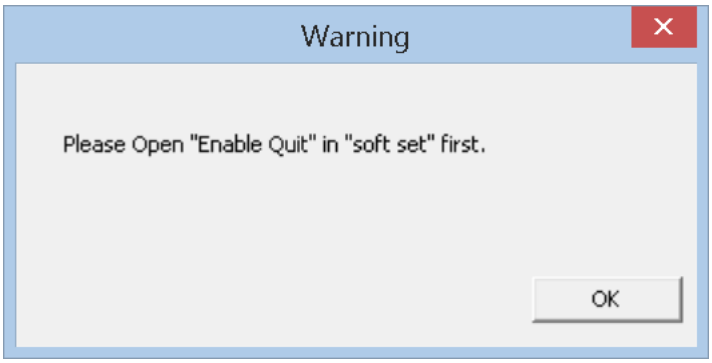
All the Server Computers can be controlled by the Client Computers in the local area network. If the **server computer** and **client computer** are not in local area network, the server computer must be local dial-up internet access.

2. Settings

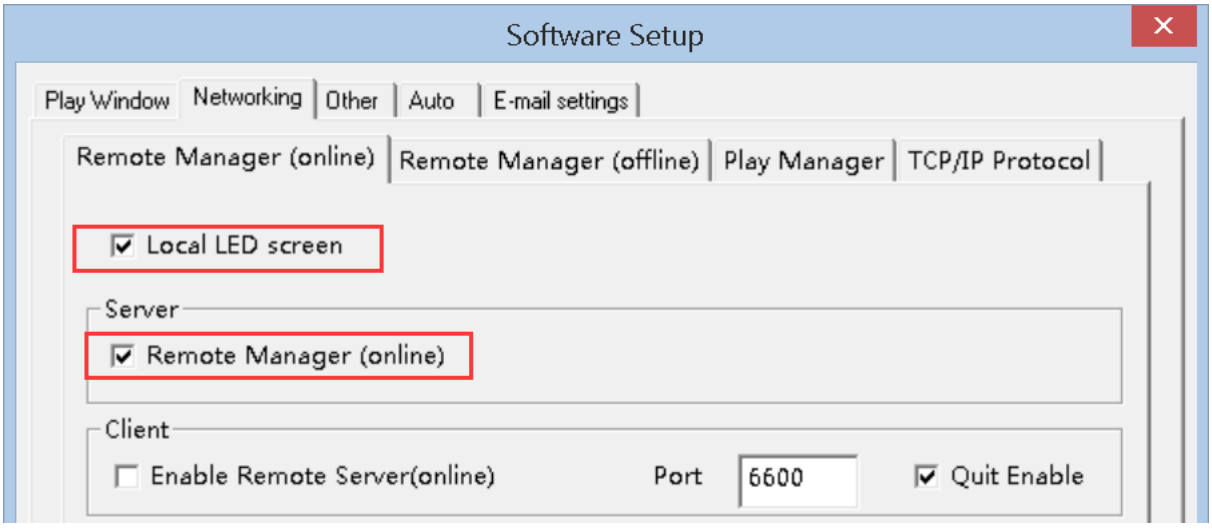
1. **LedStudio settings on Server Computer:** enables **Local LED screen** and Client **Enable Remote Server(online),** save setup



Note: **Quit Enable**, if unable it, LedStudio on server computer cannot be closed.

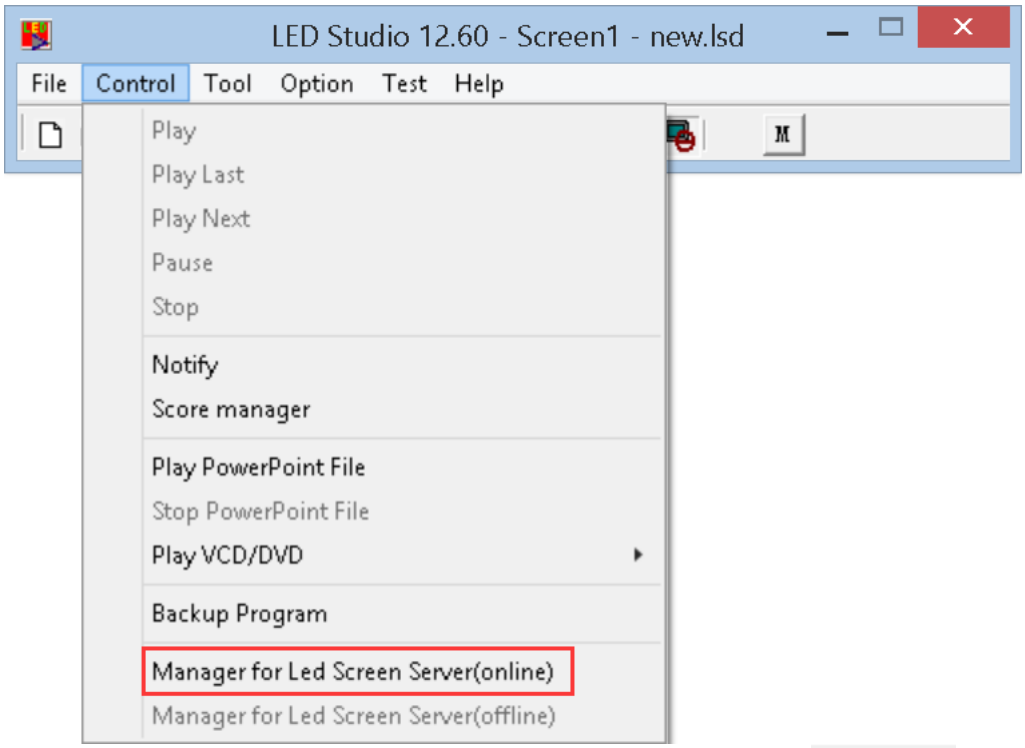


2. **Client computer LedStudio**, enable **Local LED screen** and Client **Remote Manager (online),** save setup.

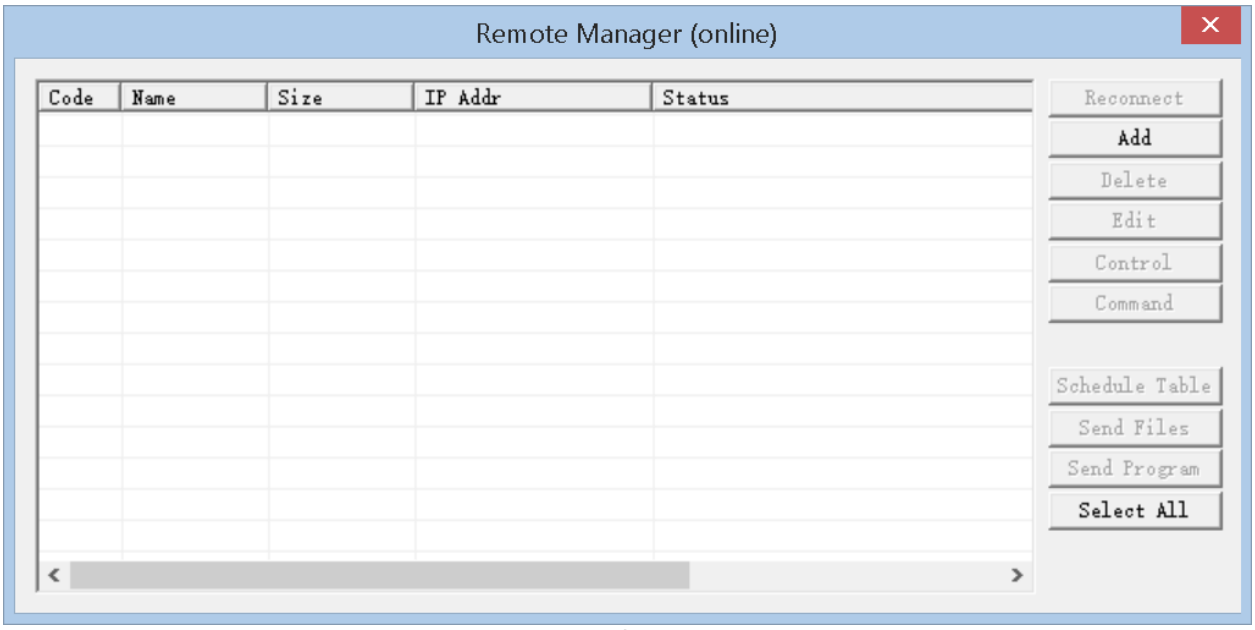


3. **Client computer LedStudio**, **Remote LED Screen Manager(Online) Icon** changes from inactivated status to activated status

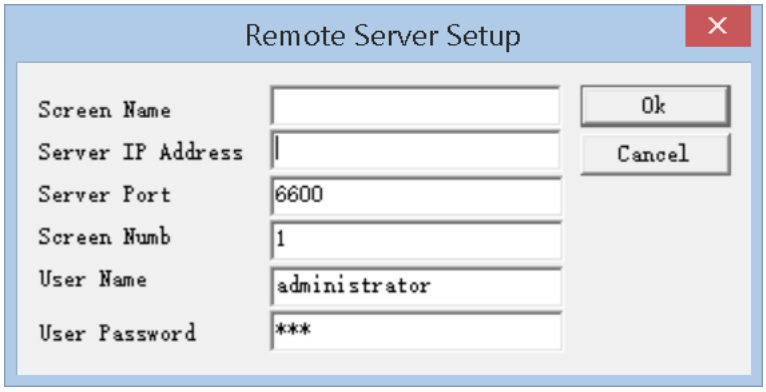
And **Manager for Led Screen Server (online)** is activated.



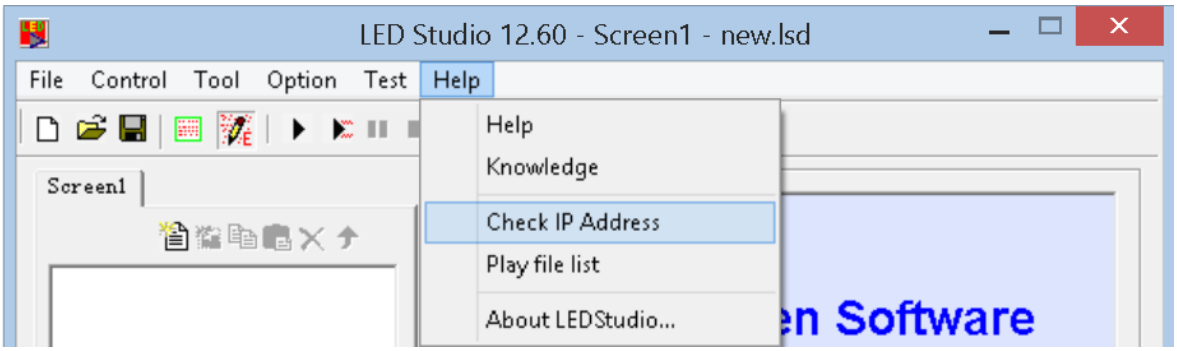
4. **Client Computer LedStudio**, Click **Remote LED Screen Manager (Online) Icon** , or **Manager for Led Screen Server (online)** under **Contrl Menu**, then the following window appears



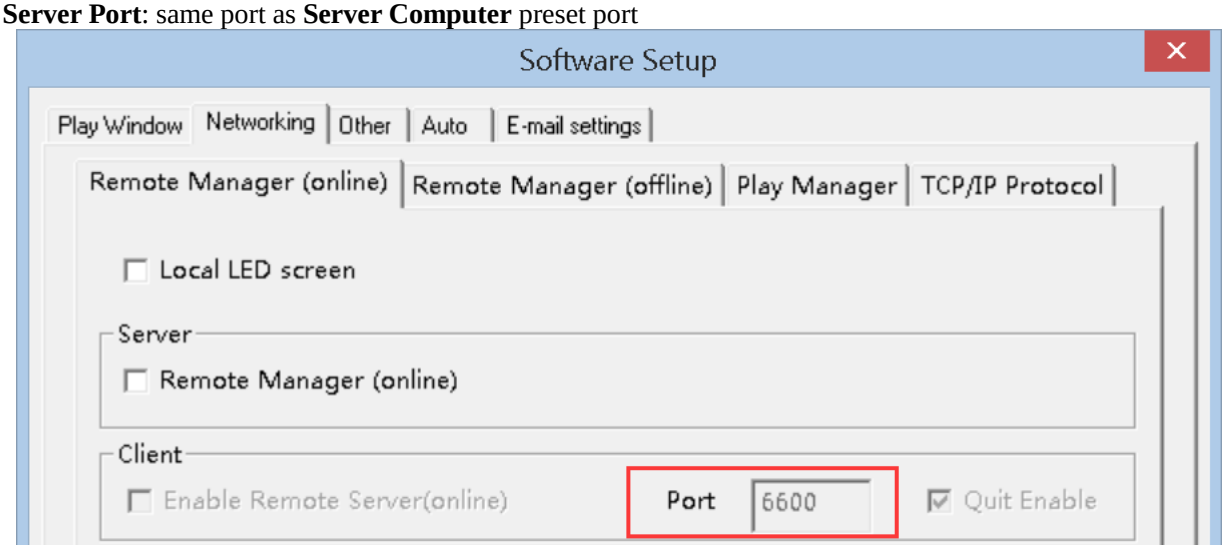
Click **Add**



Screen Name: Type in the led display name (or leave it empty)
Server IP: Type in **Server Computer's** IP.
Tip: use the **Check IP Address** in Help Menu to check the Server Computer's IP



Server Port: same port as **Server Computer** preset port

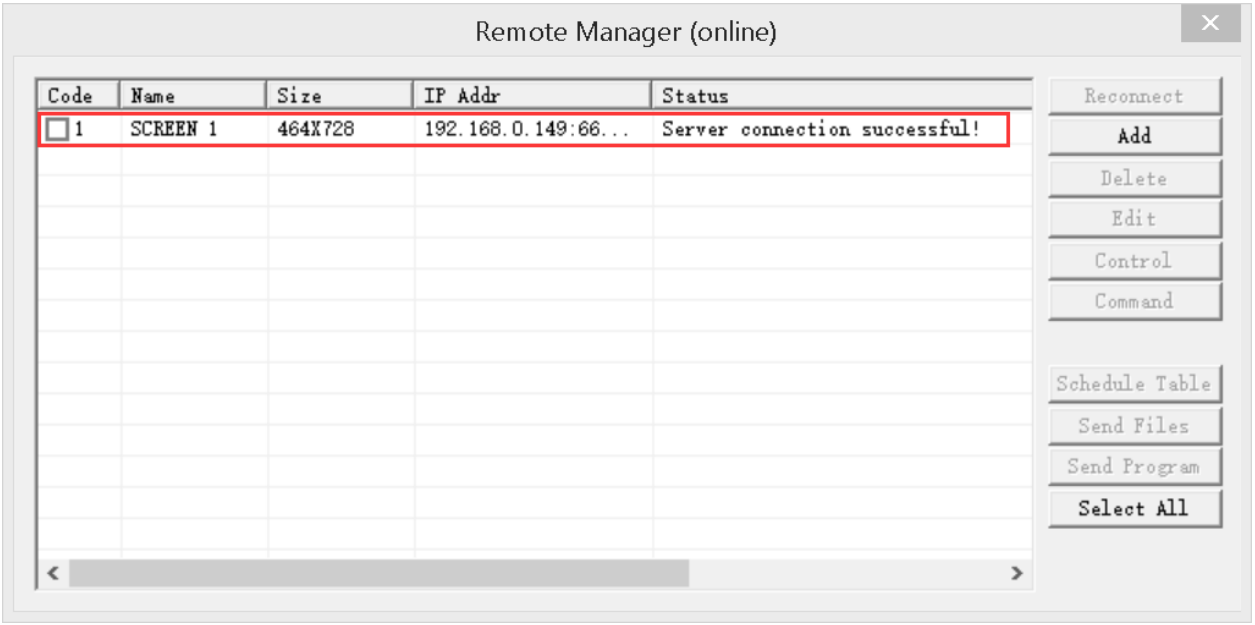


Screen Numb: type in a number
User Name: the LedStudio **User** name of **Server Computer**
User Password: the LedStudio **User password** of **Server Computer**

Click **Ok**

3. Available Operations after Setting Up

When **Client Computer** and **Server Computer** is connected , in **Client Computer LedStudio** will have the following window.

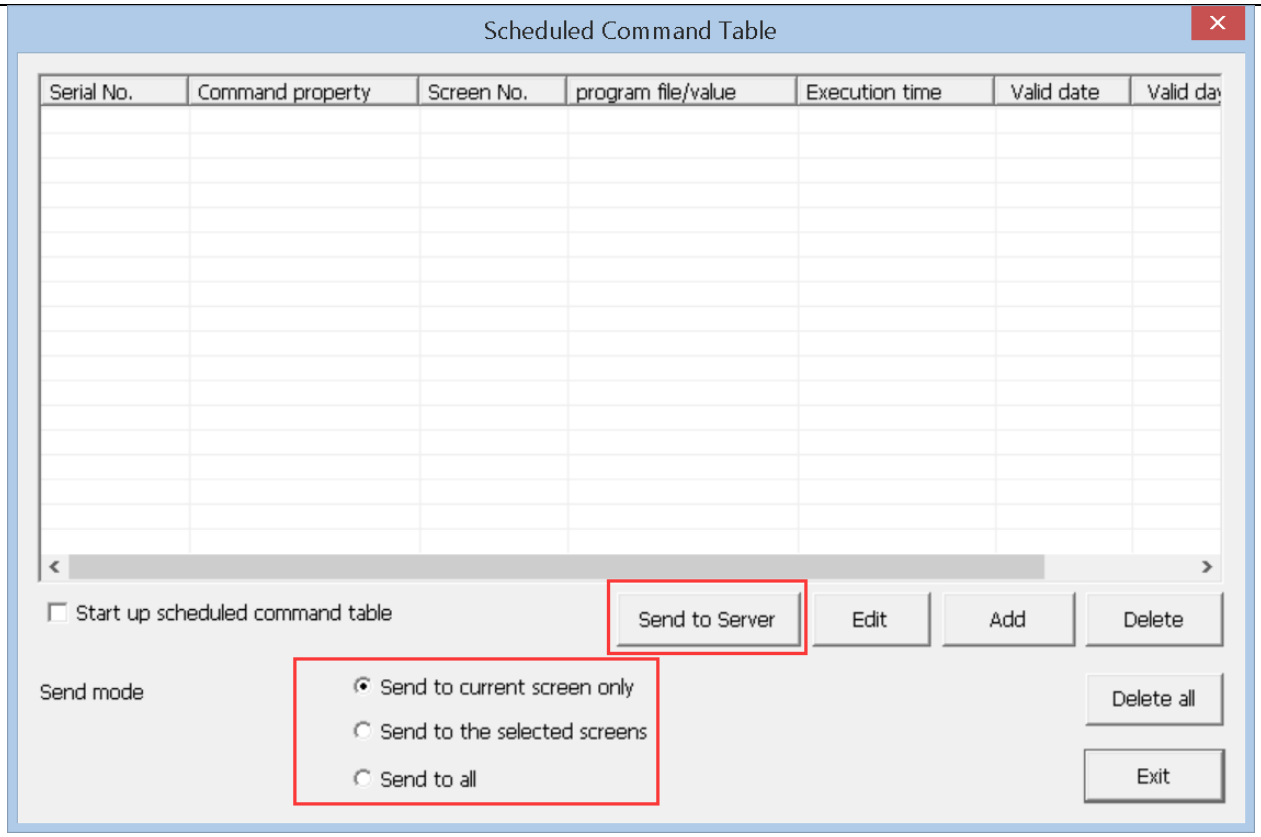


1. Reconnect/Add/Delete/Edit/Control

Reconnect: try reconnecting to the added **Server Computer**
Add: add another **Server Computer**
Delete: delete a selected **Server Computer**
Edit: change info of selected **Server Computer**
Control: access to the **Server Computer**, realize Remote Desktop Control.
Command: send command to **Server Computer**

2. Schedule Table

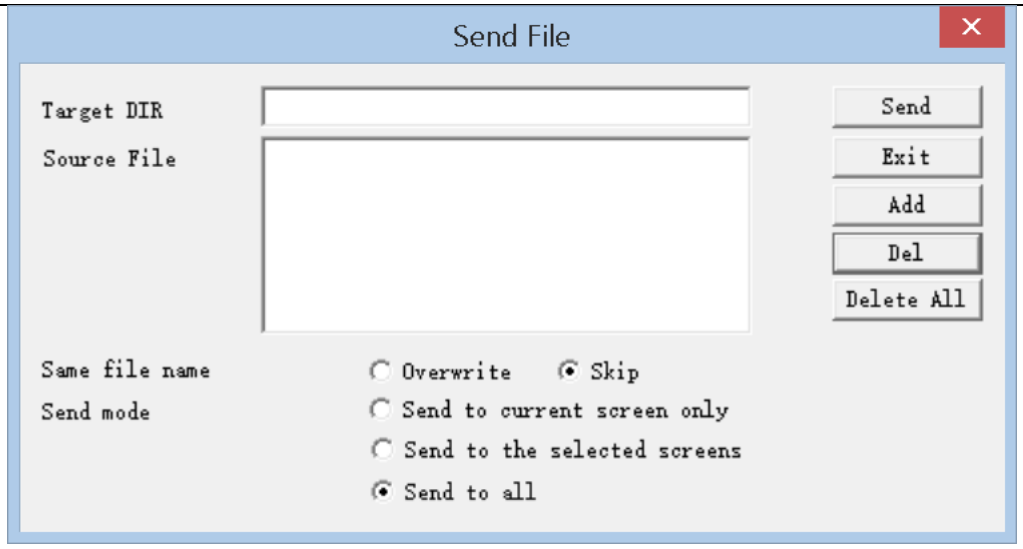
Schedule Table: set **Schedule Command Table (**refer to **3. 2. 4. 7 Schedule Table)** and send to Server Computer LedStudio



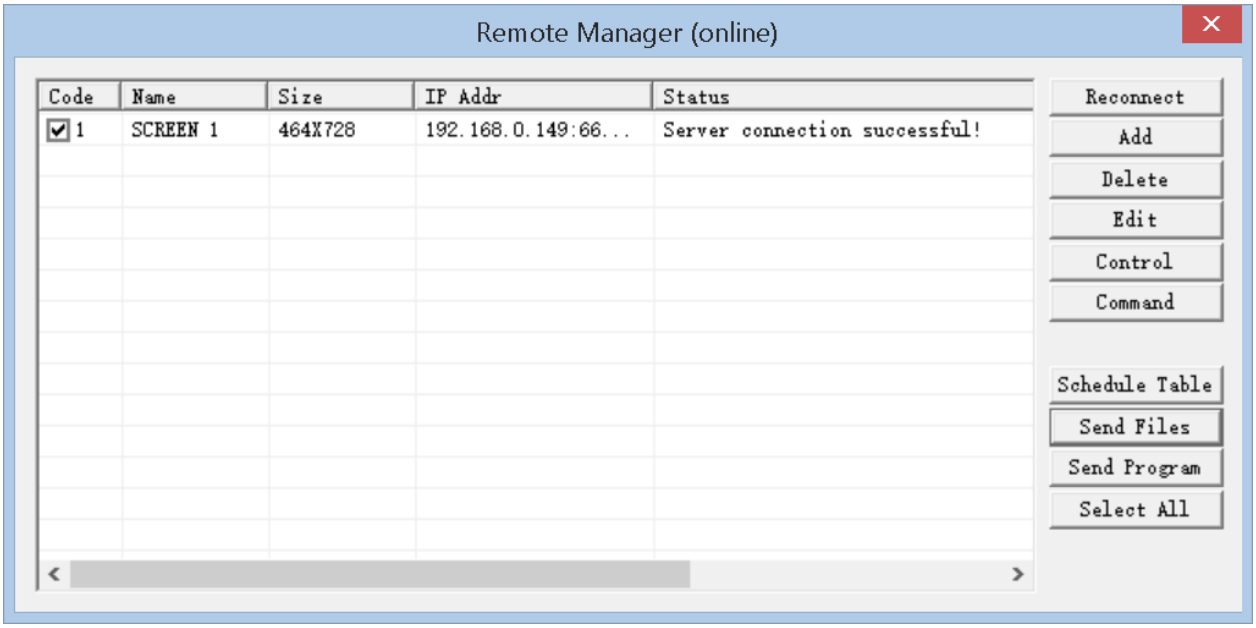
Send to current screen only: send the Scheduled Command Table to the current selected **Server Computer**
Send to the selected screen: select the **Server Computer(s)** to send the Scheduled Command Table to
Send to all: send to all **Server Computers** listed in **Remote LED Screen Manager Online**

3. Send Files

Send Files: send files from Client Computer to Server Computer

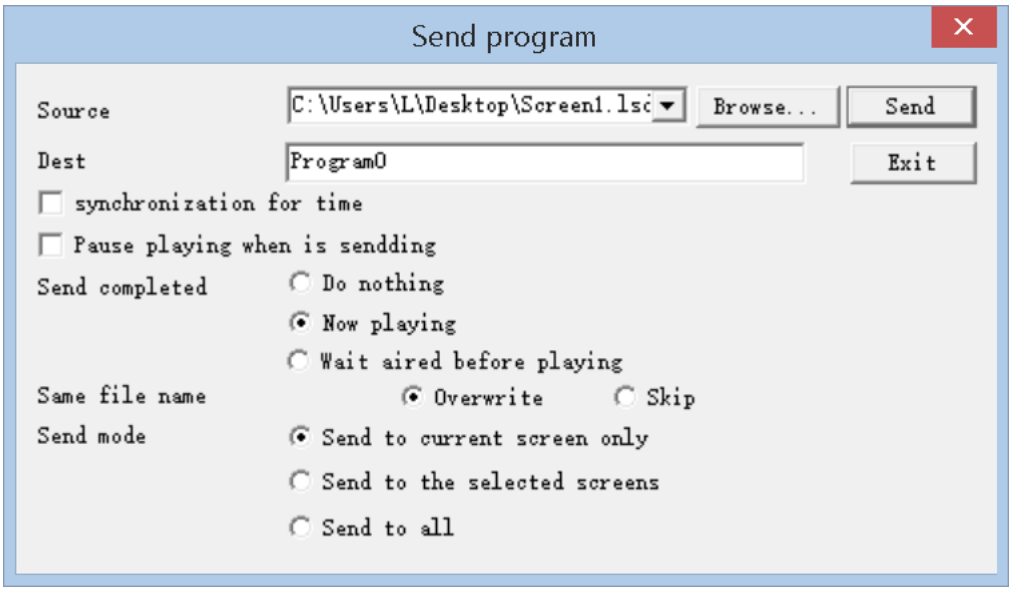


Target DIR: Server Computer Path to store incoming files from Client Computer
Source File: the outgoing files list
Send: send listed **Source File** to **Target DIR**
Exit: quite **Send File window**
Add: add a file to Source File
Del: delete a selected Source File
Delete All: delete all Source File
Same file name **Overwrite:** if **Target DIR** has a file with the same name of **Source File**, **Source File** replaces the **Target DIR** file
Same file name **Skip**: if **Target DIR** has a file with the same name of **Source File**, **Source File** skips transmitting to **Target DIR**.
Send current only: send the **Source File** to the current selected Server Computer
Send by select: select the Server Computer(s) to send the **Source File** to
Send to all: send **Source File** to all Server Computers listed in Remote LED Screen Manager Online



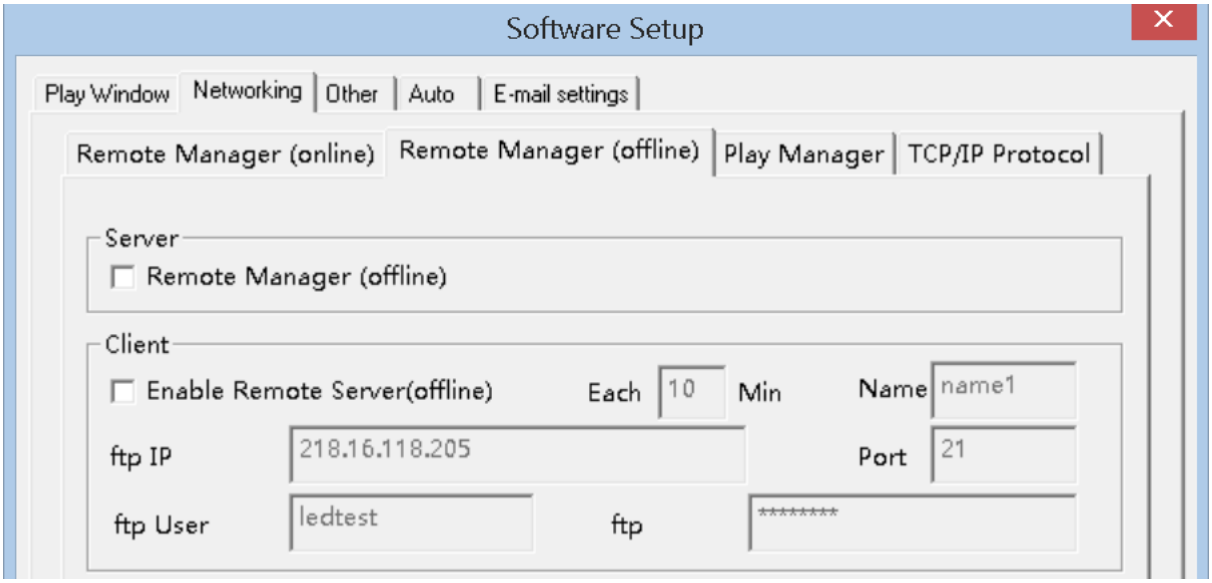
4. Send Program

Send Program: send .lsd file from Client Computer to Server Computer



Source: the outgoing .lsd file
Dest: Destination. **Server Computer** Path to store incoming .lsd file from **Client Computer**
Browse…: browse the Client Computer to select the .lsd file
Send: send Source to Dest
Exit: quite **Send Program** window
Synchronization for time: set **Server Computer** time synchronous with **Client Computer**
Pause playing when is sending: Pause **Server Computer LedStudio** playing when **Server Computer** is receiving .lsd file from **Client Computer**
Auto Play after receive the program: **Server Computer LedStudio** load and play the incoming .lsd file immediately when finishing receiving.
Same file name Overwrite: if **Dest** has an .lsd file with the same name of **Source**, **Source** .lsd File replaces the **Dest** .lsd file
Same file name Skip: if **Dest** has an .lsd file with the same name of **Source**, **Source** .lsd File skips transmitting the .lsd file
Send current only: send the **Source** .lsd file to the current selected Server Computer
Send by select: select the Server Computer(s) to send the **Source** .lsd file
Send to all: send **Source** .lsd file to all Server Computers listed in Remote LED Screen Manager Online

3.2.4.13.3.2 FTP Server



1. Define:

Client Computer LedStudio uploads settings and files to FTP Server, then **Server Computer LedStudio** downloads and carries out.

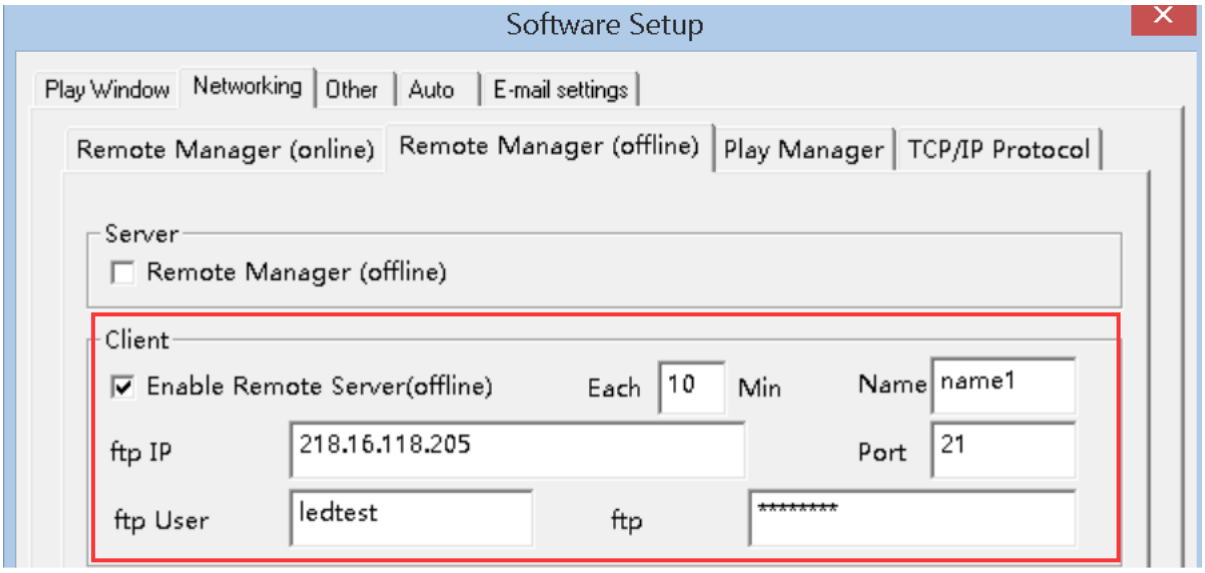
Computer that directly connects to the **led display** is **Server Computer**

Computer that remotely controls the **Server Computer** is **Client Computer**

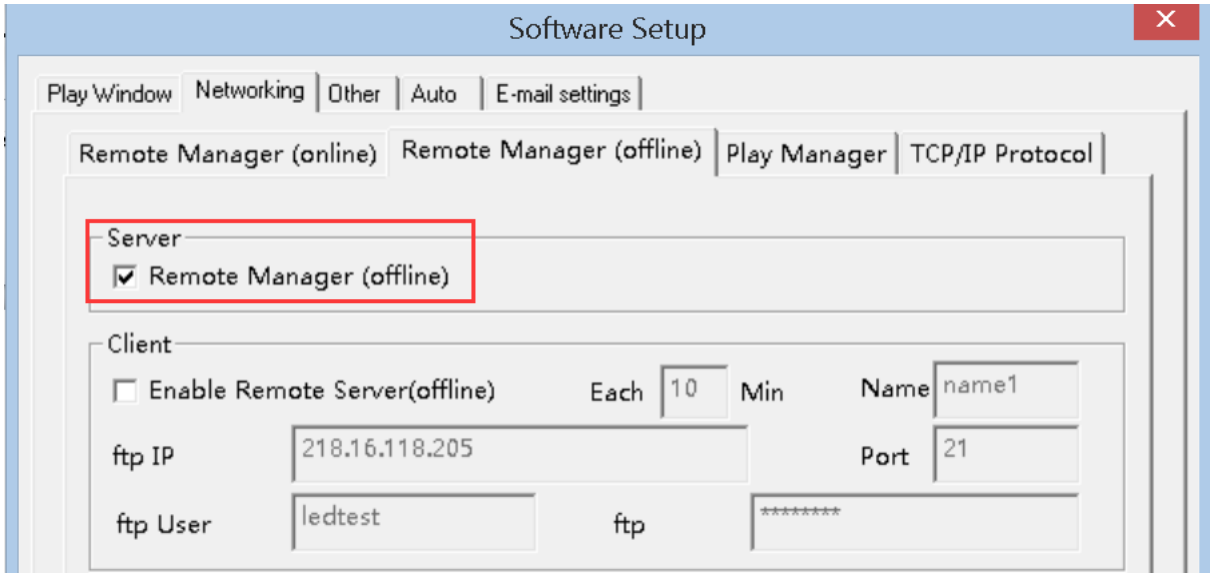
Before **Settings**, the **FTP Server** should be setup and ready.

2. Settings:

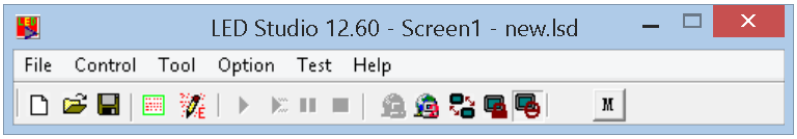
1. **Enable Remote Server** (offline) in LedStudio of **Server Computer**
   Type in the FTP info: FTP IP, Port, FTP User (name), FTP Password
   10 **Minute**: means every 10 minutes **Server Computer LedStudio** will fetch updates from **FTP server**



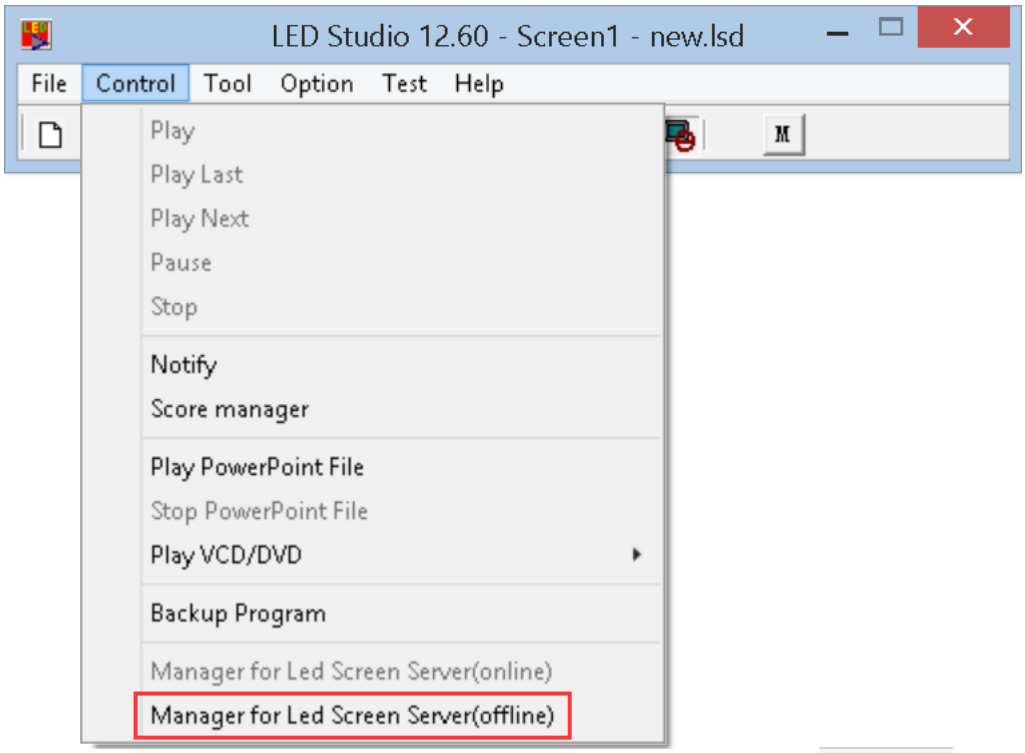
2. In LedStudio of **Client Computer Enable Remote Manager (offline)**



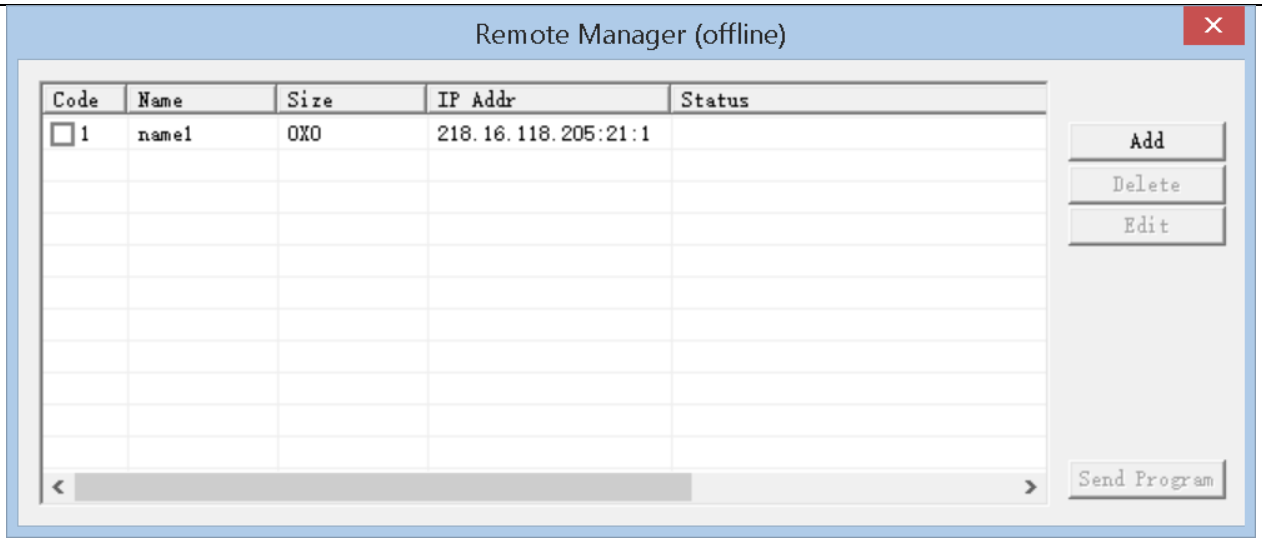
3. Then in **Client Computer** LedStudio **Remote LED Screen Manager(offline) Icon** changes from inactivate to activate



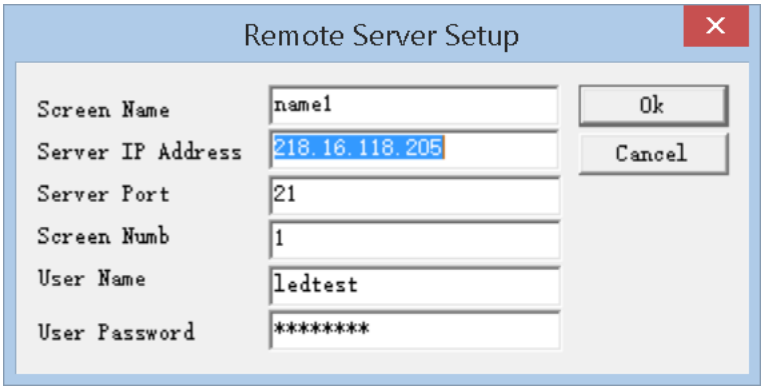
And **Manager for Led Screen Server (offline)** is activated.



4. **Client Computer LedStudio**, Click **Remote LED Screen Manager (offline) Icon** , or **Manager for Led Screen Server (offline)** under **Contrl Menu**, then the following window appear

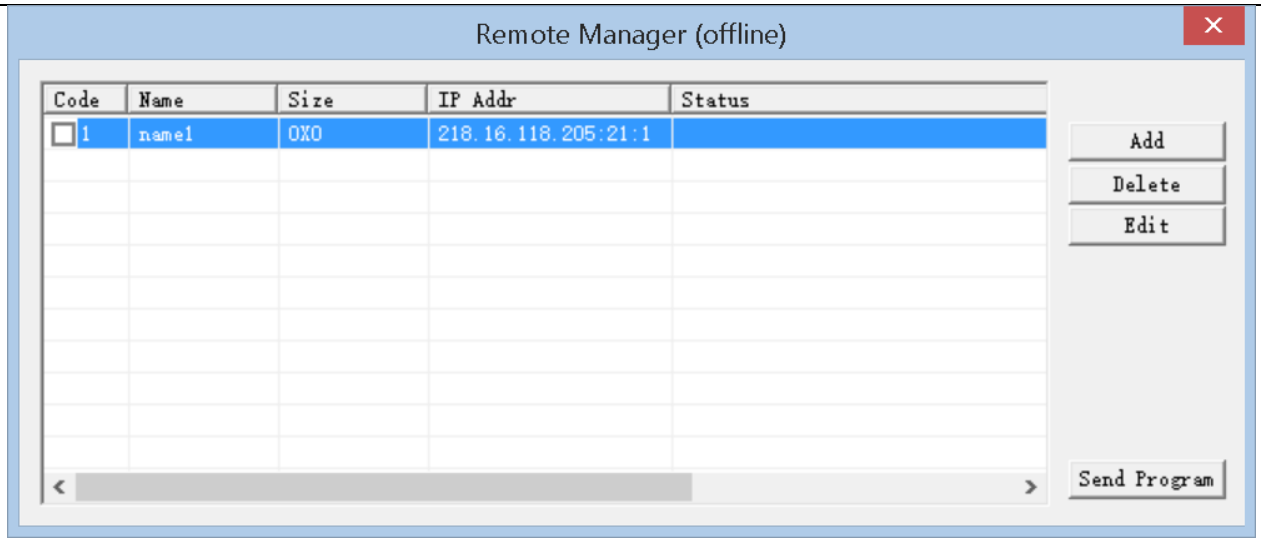


Click **Add**



Type in the **same FTP Server info** as the **Server Computer**
Screen Name: Name for the Server Computer Led Display
Server IP Address: the same IP address as in Server Computer (ftp IP)
Server Port: Same as Server Computer
Screen Num: type in a number
User Name: the LedStudio **User** name of **ftp**
User Password: the LedStudio **User password** of **ftp**

Cick **OK**

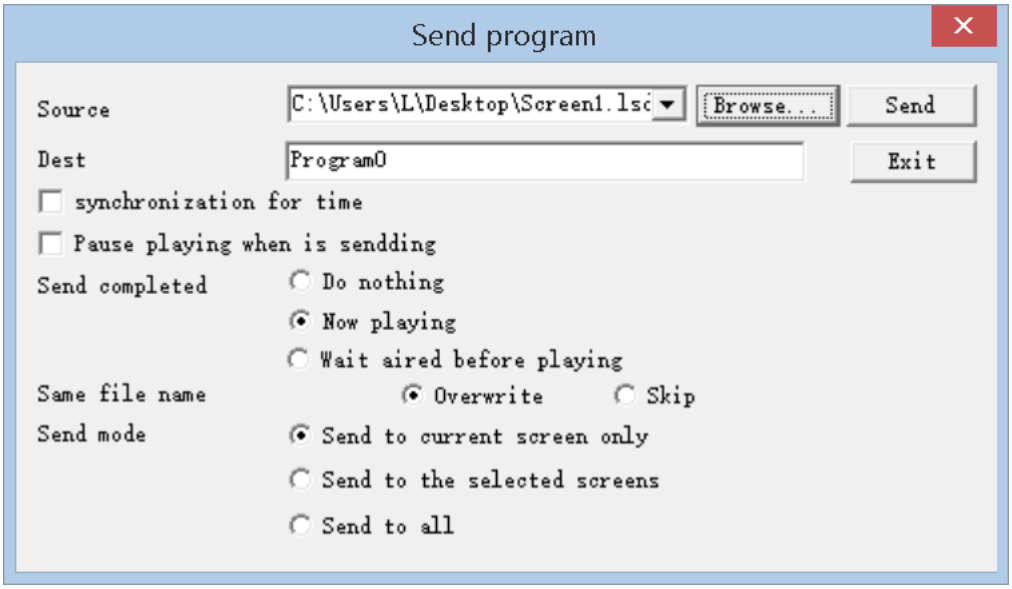


Add: add another FTP server
Delete: delete the selected FTP server
Edit: edit the selected FTP server

3. Available Operations

1. Send Program

Send Program: send .lsd program from **Client Computer** to **FTP Server Computer**

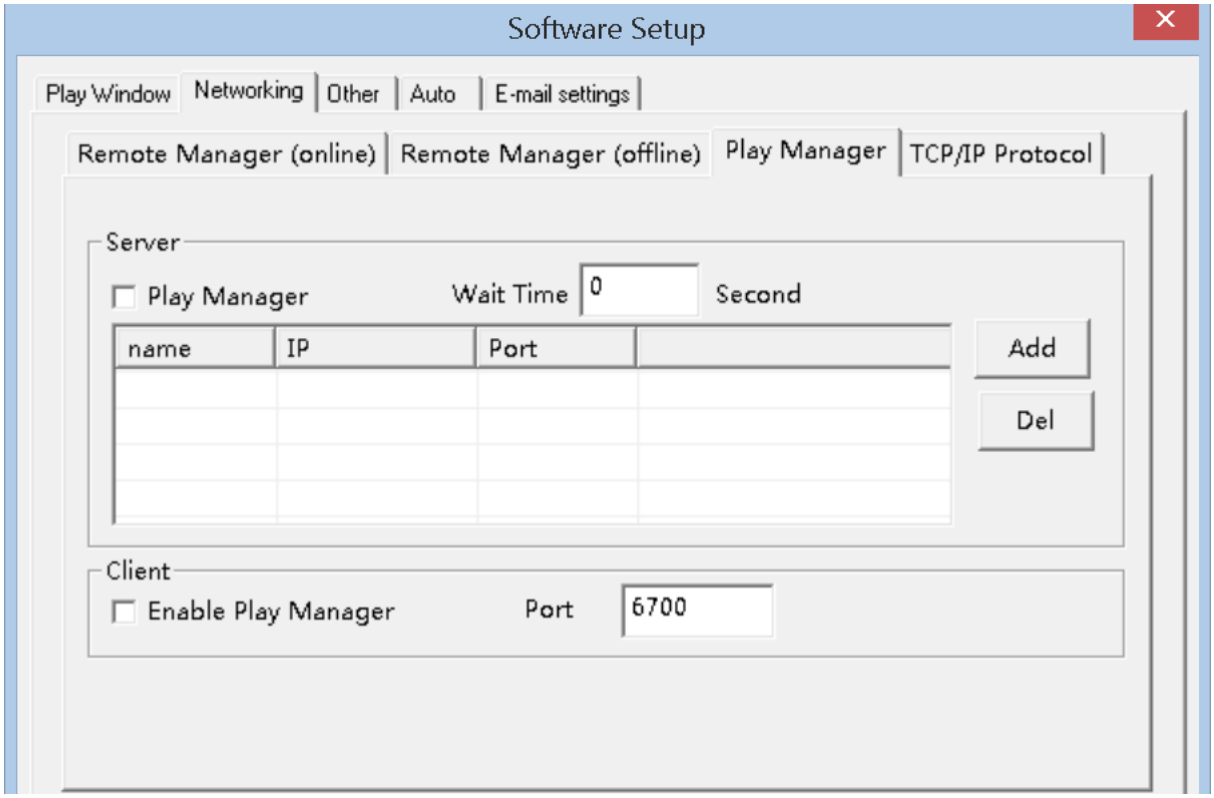


Source: the outgoing .lsd file
Dest: Destination. **FTP Server Computer** Path to store incoming .lsd file from **Client Computer**
Browse…: browse the **Client Computer** to select the .lsd file
Send: send Source to Dest
Exit: quite **Send Program** window
Synchronization for time: set **Server Computer** time synchronous with **Client Computer**
Pause playing when is sending: Pause **Server Computer LedStudio** playing when **Server Computer** is receiving .lsd file from **FTP Server Computer**
Same file name **Overwrite**: if **Dest** has an .lsd file with the same name of **Source**, **Source** .lsd File replaces the **Dest** .lsd

file

Same file name **Skip**: if **Dest** has an .lsd file with the same name of **Source**, **Source** .lsd File skips transmitting the .lsd file
Send current only: send the **Source** .lsd file to the current selected **FTP Server Computer**
Send to the selected screens: select the **FTP Server Computer(s)** to send the **Source** .lsd file to
Send to all: send **Source** .lsd file to all **FTP Server Computers** listed in **Remote LED Screen Manager (offline)**

3.2.4.13.3.3 Play Manager

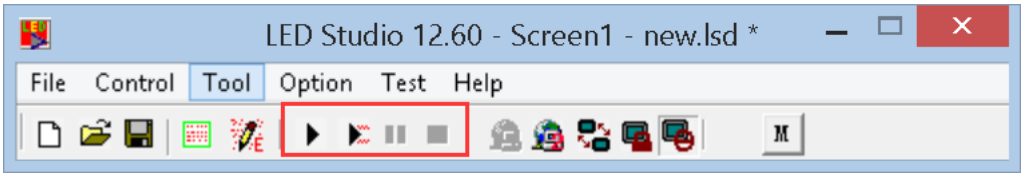


Play Manager: works with **Online/real time remote control**

1. **Define:**

Computer that directly connects to the **led display** is **Server Computer**
Computer that remotely controls the **Server Computer** is **Client Computer**

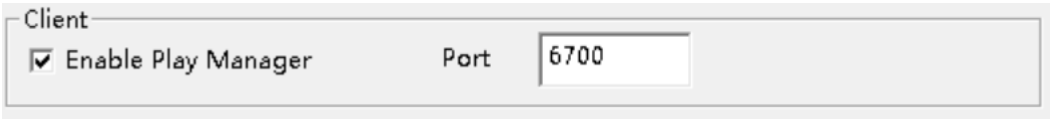
Purpose: Set all the listed **Server Computers Play/ Stop** synchronously



2. **Settings:**

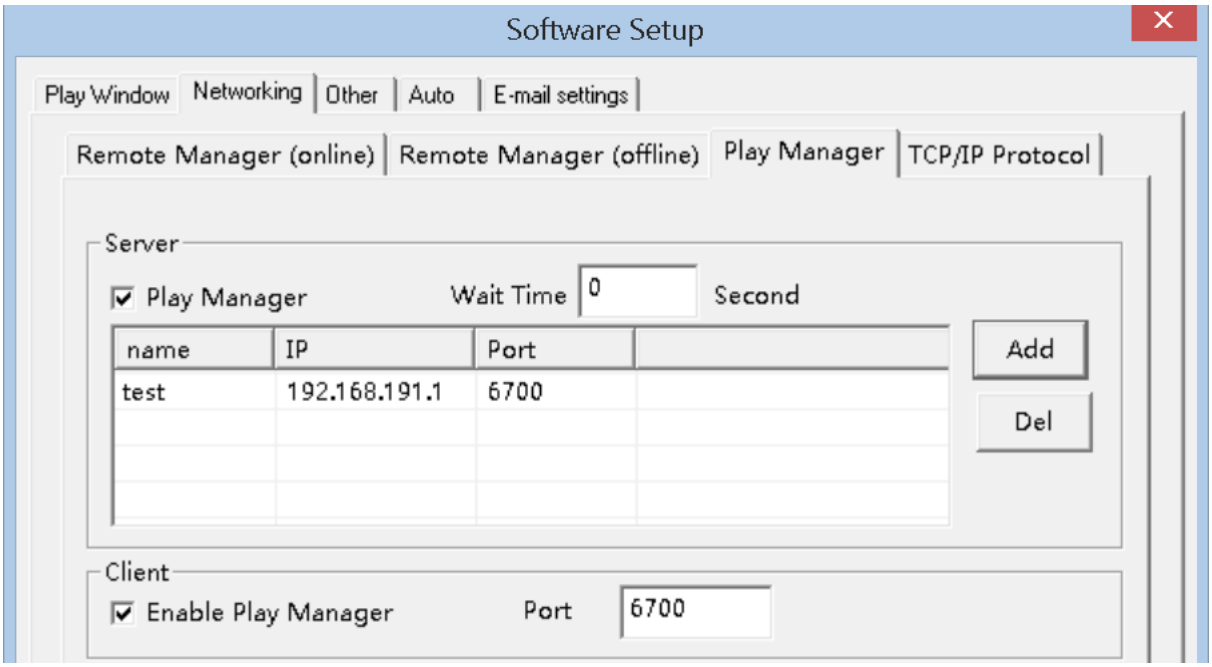
Note: Server Computers are set **online remote control/real time remote control**

1. **Server Computers Enable Play Manager**



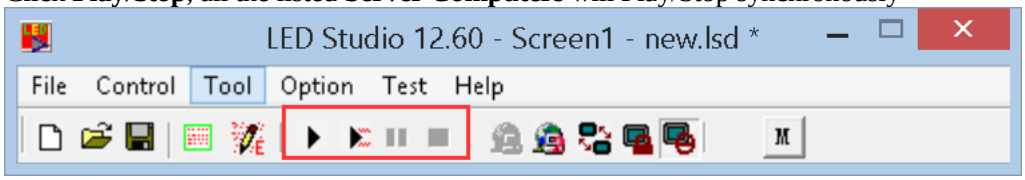
2. Client Computer Enable Play Mnager

Add: add the Server Computes to the list
Del: Delete the selected Server Computer(s)

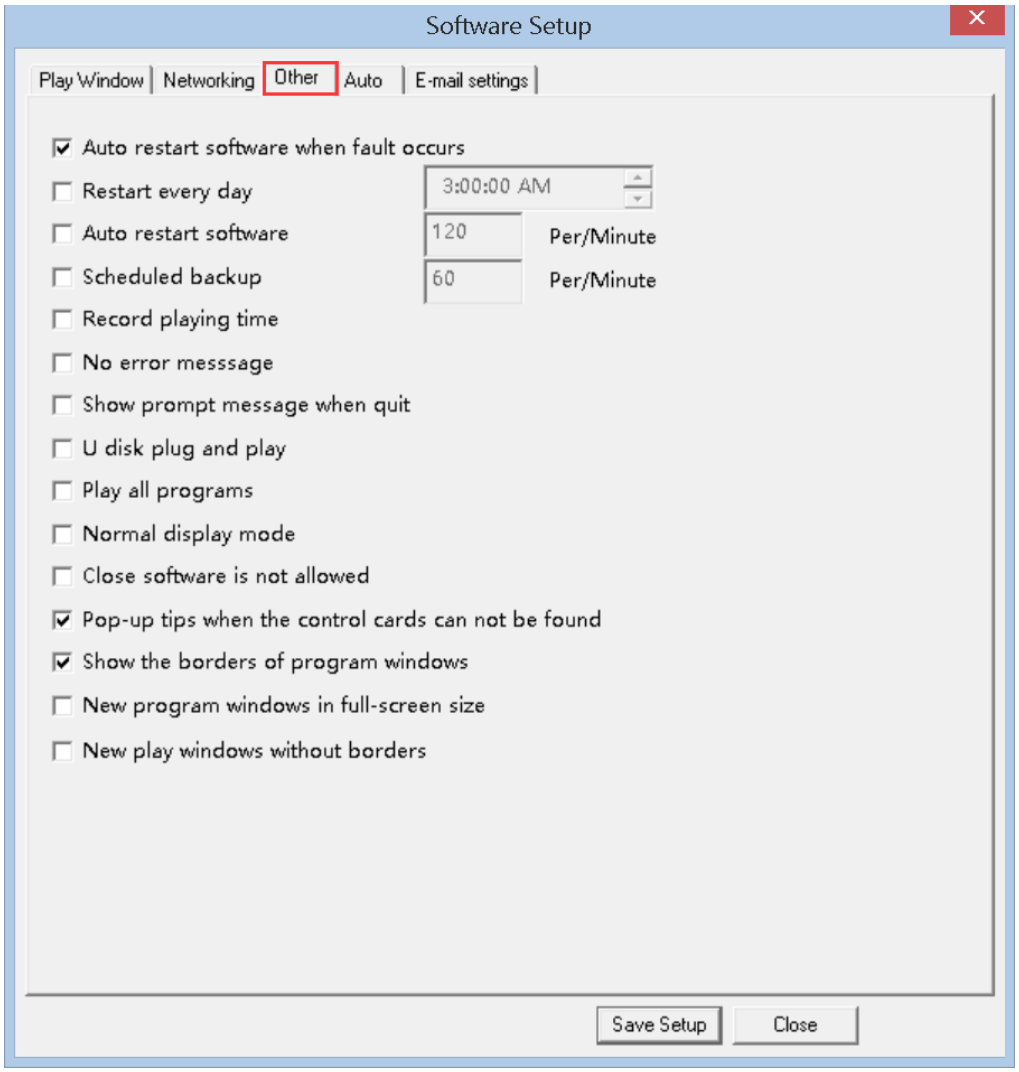


3. Save Setup.

Click **Play/Stop**, all the listed **Server Computers** will Play/Stop synchronously

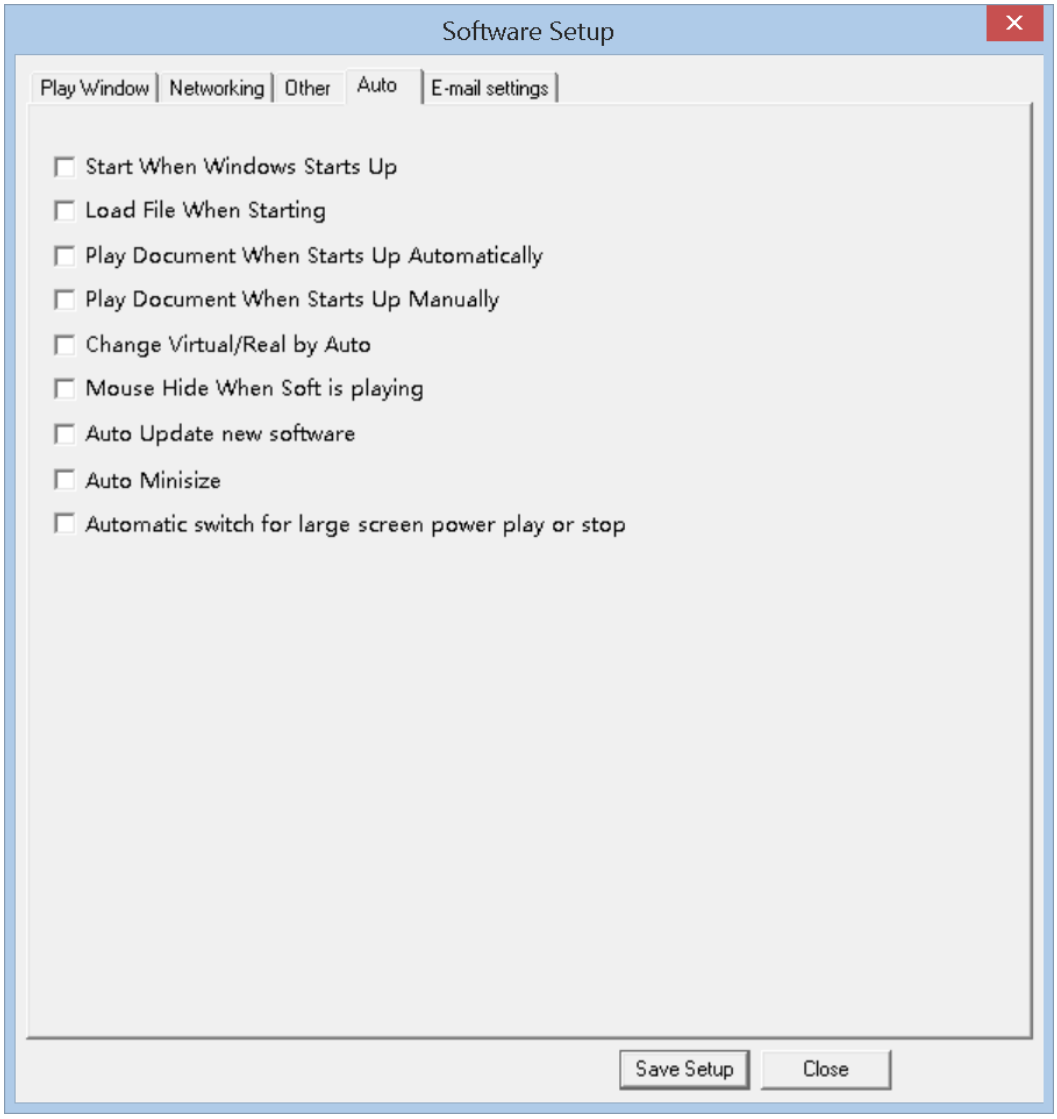


3.2.4.13.4 Other



Auto restart software when fault occurs: automatically restart LedStudio when encounter errors
Restart every day: scheduled restarting LedStudio everyday
Auto Restart Software: restart LedStudio every preset minute(s)
Scheduled Backup: automatically back up files of .lsd file every preset time
Record playing time: record the playing time
No error message: when fault occurs, no prompt allowed
Show prompt message when quit: When quit the LEDstudio, a message will be popped out
U disk plug and play: enable u disk plug and play function. LedStudio load and play .lsd program from USB disck as priority
Play all programs: If enabled, all programs will be played at the same time
Normal Display: For No-Sending Card Mode Only. LedStudio capture the contents of **Screen Area** and send directly to receiving cards.
Close software is not allowed: If enabled, the software can't be closed
Pop-up tips when the control cards can't be found: A message will be popped out when the the control cards can't be found
Show the borders of program windows: Show the borders of play window, so the size of play window can be changed by mouse
New program windows in full- screen size: the new program windows will be created in full-screen size
New play windows without borders: the new created play windows don't have borders

3.2.4.1.5 Auto



Auto settings:

Start when Windows Starts up: open **LedStudio** when Windows starts up

Load File when Starting: Load .lsd file automatically when open LedStudio

Play Document when starts up automatically: start playing files of .lsd file automatically

Play Document when starts up manually: start playing files of .lsd file when click play

Change virtual/real by auto: for virtual **led display**, playing letters in real-pixel mode for better visual effect, and playing image/video in virtual pixel mode; automatically switch.

Mouse hide when soft is playing: hide the mouse pointer in **Play Window** when **Play Window** is playing.

Auto update new software: automatically update LedStudio software

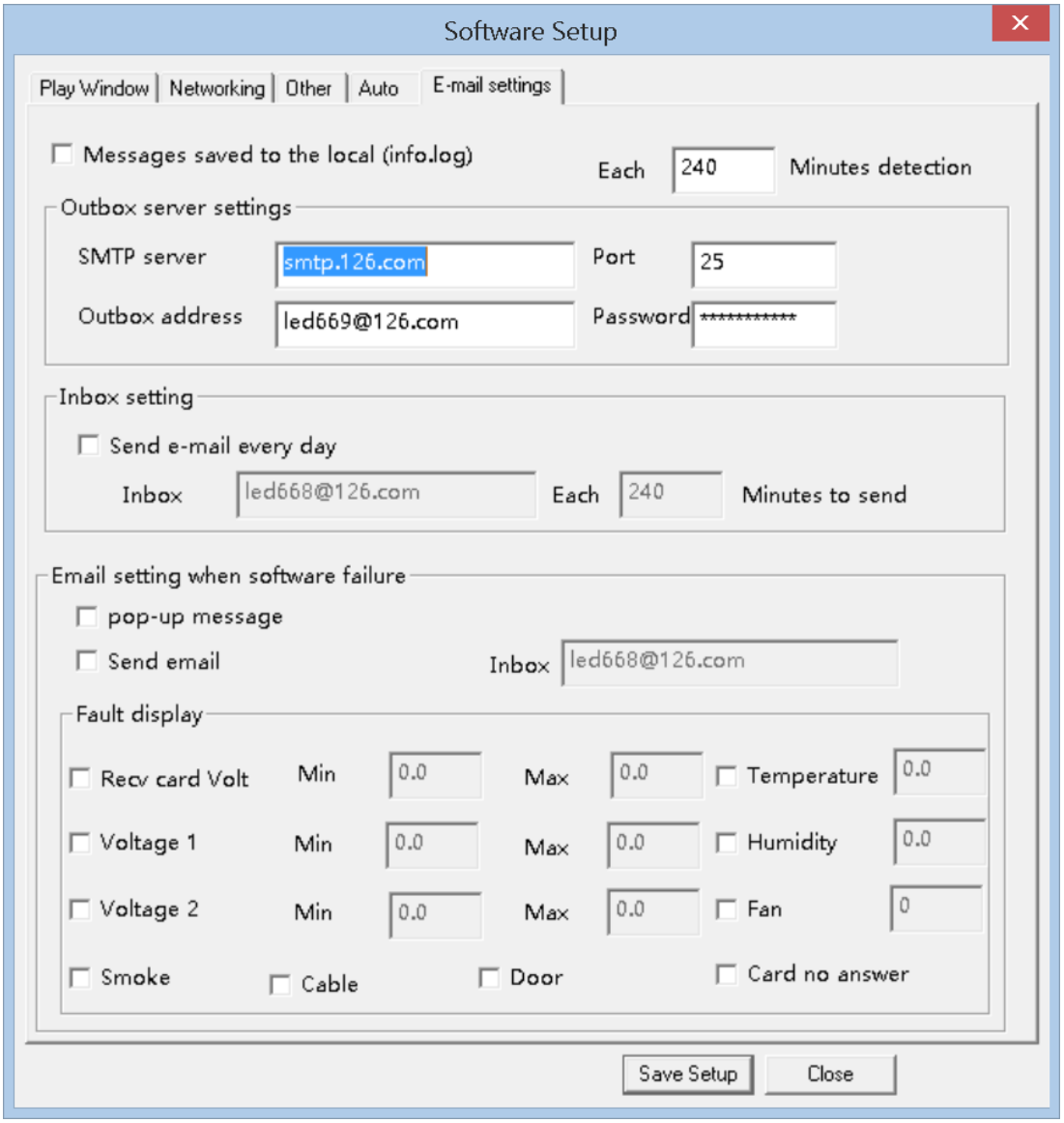
Auto minimize: Minimize LedStudio automatically

Automatic switch for large screen power play or stop: the power of screen automatically power on/off according to the

status of programs

Save Setup: save settings

3.2.4.1.6 Email settings



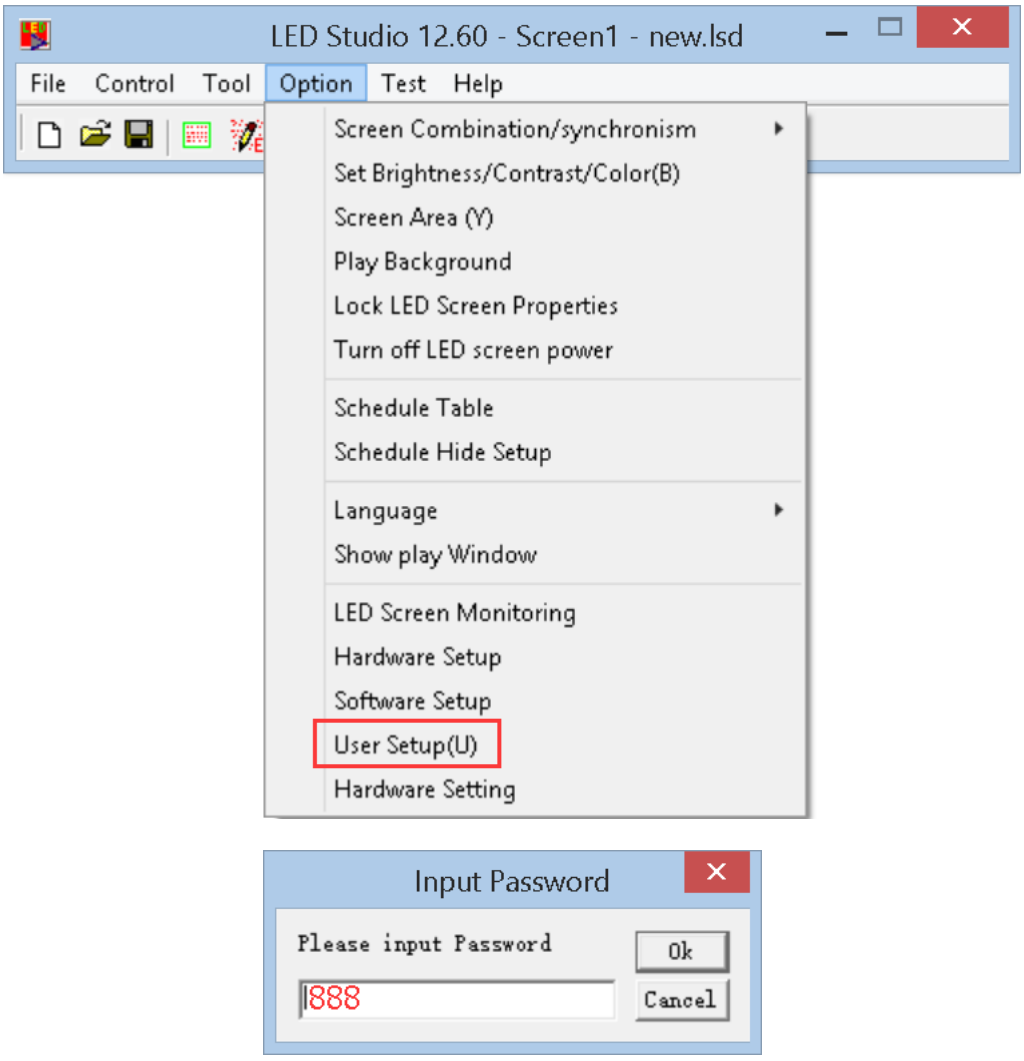
Outbox server settings:
SMTP server: the SMTP server address of outbox
Port: the SMTP server port of outbox
Outbox address: the any valid email address for outbox
Password: the password of outbox email
Inbox settings:
Send e-mail every day: if ticked, one email one day
Inbox: the email address for receiving the mail (please clean up the inbox regularly, in case it is full)

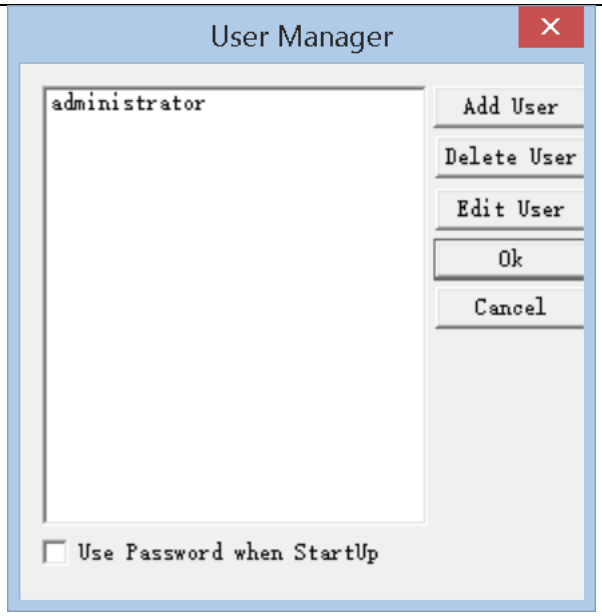
Each minutes to send:** the interval time for receiving mail

Email setting when software failure: the email setting when a fault occurs to receiving cards

Fault display: setting the monitoring data for alert email. If ticked, email will be sent automatically when detected value is less that min value or more than max value.

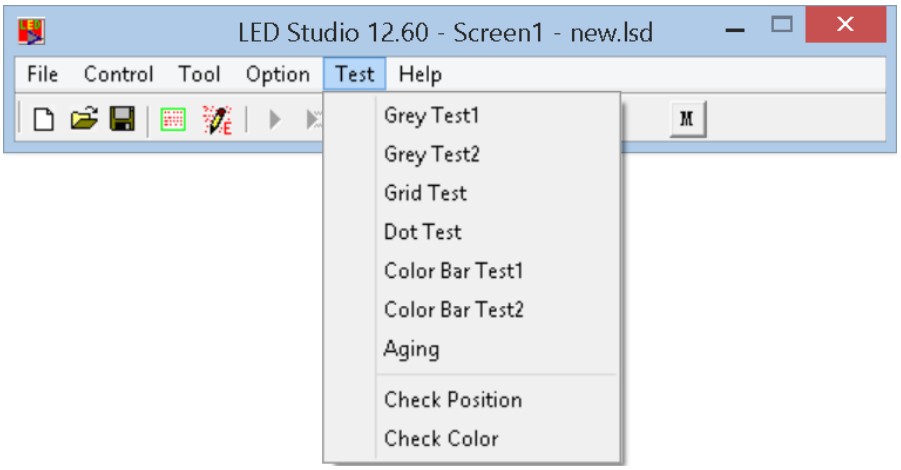
3. 2. 4. 14 User Setup





Add User: add a new user account for LedStudio
Delete User: delete a selected User account
Edit User: Edit the selected User account info
Use Password when Startup: when open LedStudio, it asks password to unlock.

3. 2. 5 Test Menu

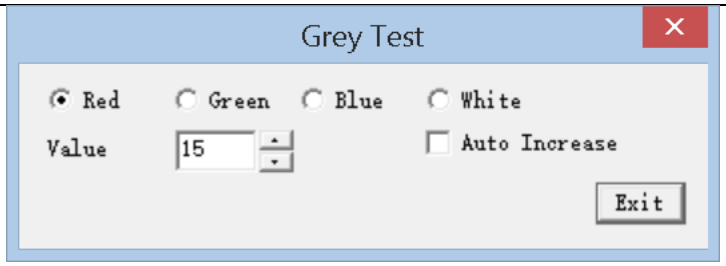


3. 2. 5. 1 Grey Test 1

Grey Test1: test Grey level from 0-255 in sequence of Red, Green, Blue, White

3. 2. 5. 2 Grey Test 2

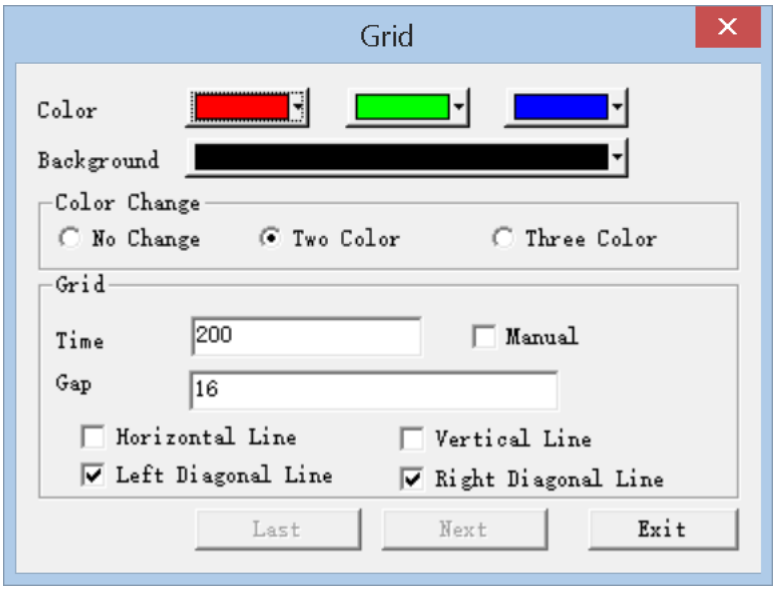
Grey Test2: select a color, a value (0-255) for testing



Auto Increase: continue testing next grey level up to 255. Then test again from 0 to 255.

3. 2. 5. 3 Grid Test

Grid Test: this can test the correctness of the image on screen. (Select three colors for testing and one static color as **Background)**



Color Change:

No Change: only the first color (Red color in the upper picture) runs in testing
Two Color: the first two colors run in testing (Red and Green)
Three Color: all three colors run in testing

Grid:
Time: in millisecond; the running speed of testing grid
Gap: the pixel numbers between two testing lines

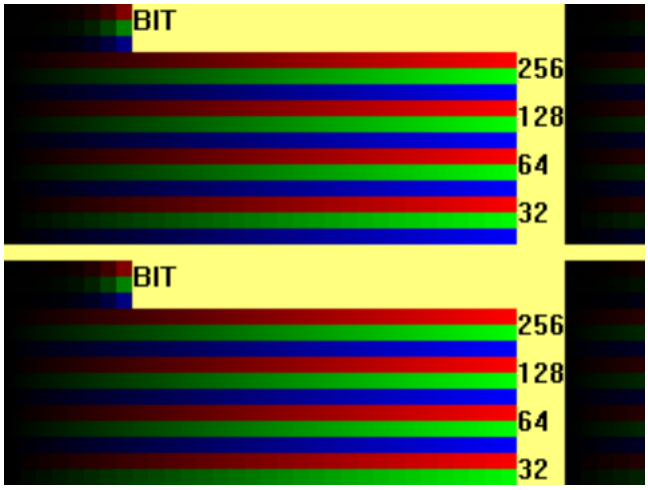
Horizontal: testing line runs horizontally
Vertical: testing line runs vertically
Left Diagonal: testing line runs in bias way
Right Diagonal: testing line runs in bias way

3. 2. 5. 4 Dot Test

Dot Test: check for bad pixels

3. 2. 5. 5 Color Bar Test 1

Color Bar Test1:

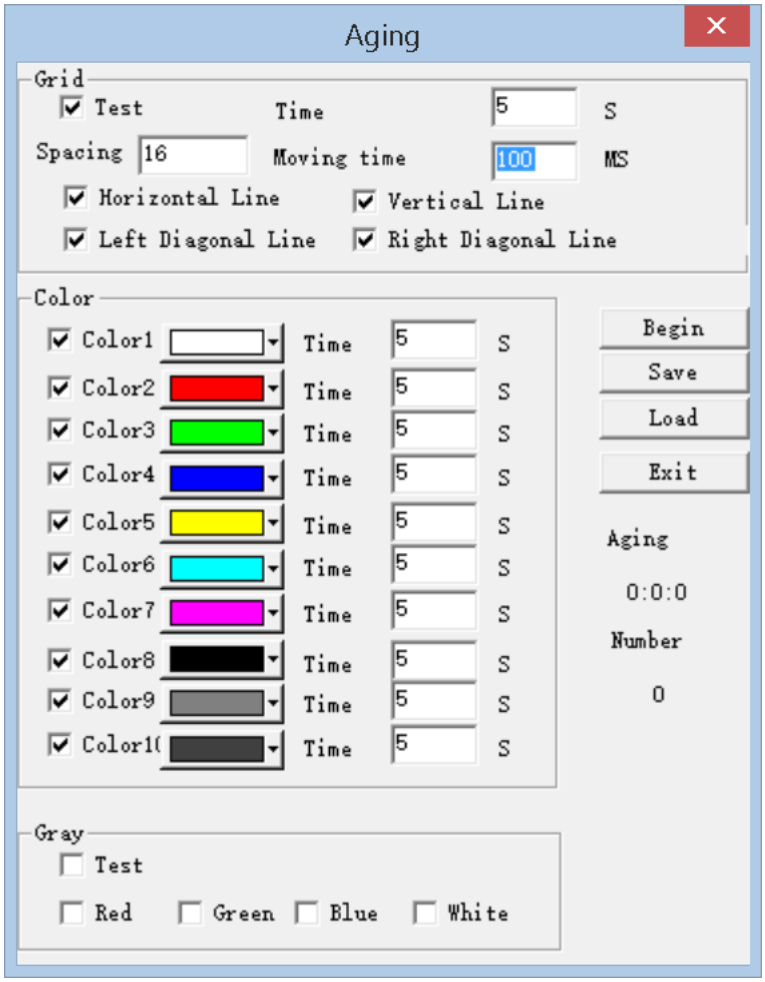


3. 2. 5. 6 Color Bar Test 2

Color Bar Test2： Choose color for color bar test

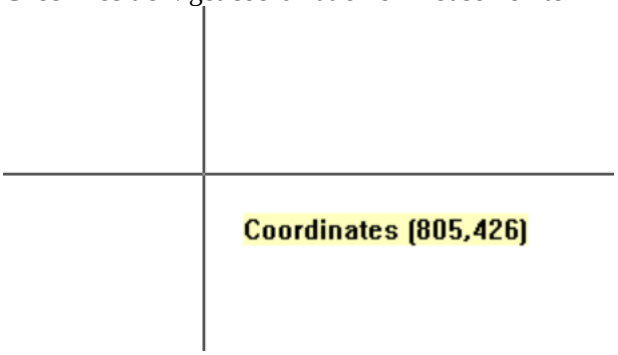
3.2. 5. 7 Aging

Aging test is used for the aging of LED screen and receiving cards



3. 2. 5. 8 Check Position

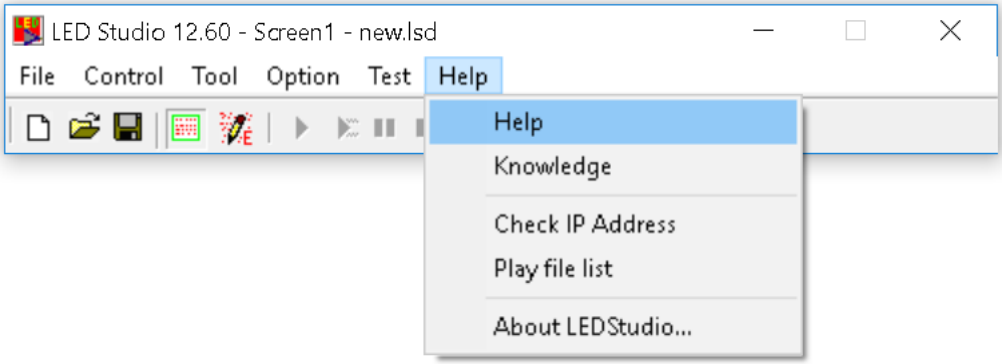
Check Position: get coordination of Mouse Pointer



3. 2. 5.9 Check Color

Check Color: get RGB value

3. 2. 6 Help Menu



3. 2. 6. 1 Help

Help: activate the LEDStudio manual

3. 2. 6. 2 Knowledge

Knowledge: some tips for LEDStudio

3. 2. 6. 3 Check IP Address

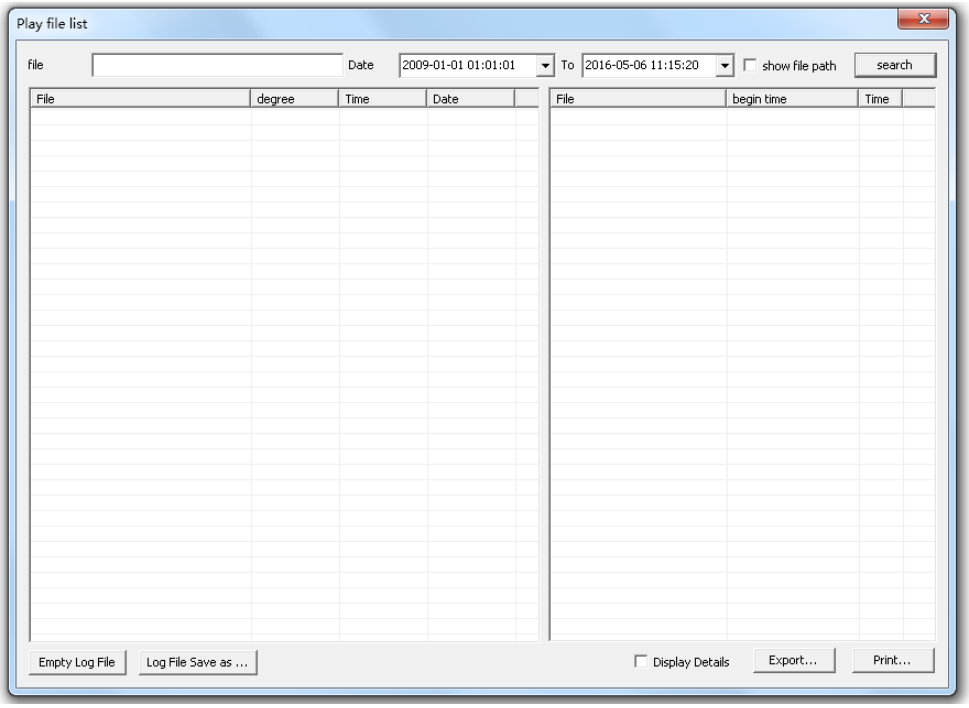
Check IP Address: get the IP Address of computer

3. 2. 6. 4 About LEDStudio

About LedStudio: show LEDStudio Version

3. 2. 6. 5 Play File List

Play file list: can check records that the file has played via LEDStudio



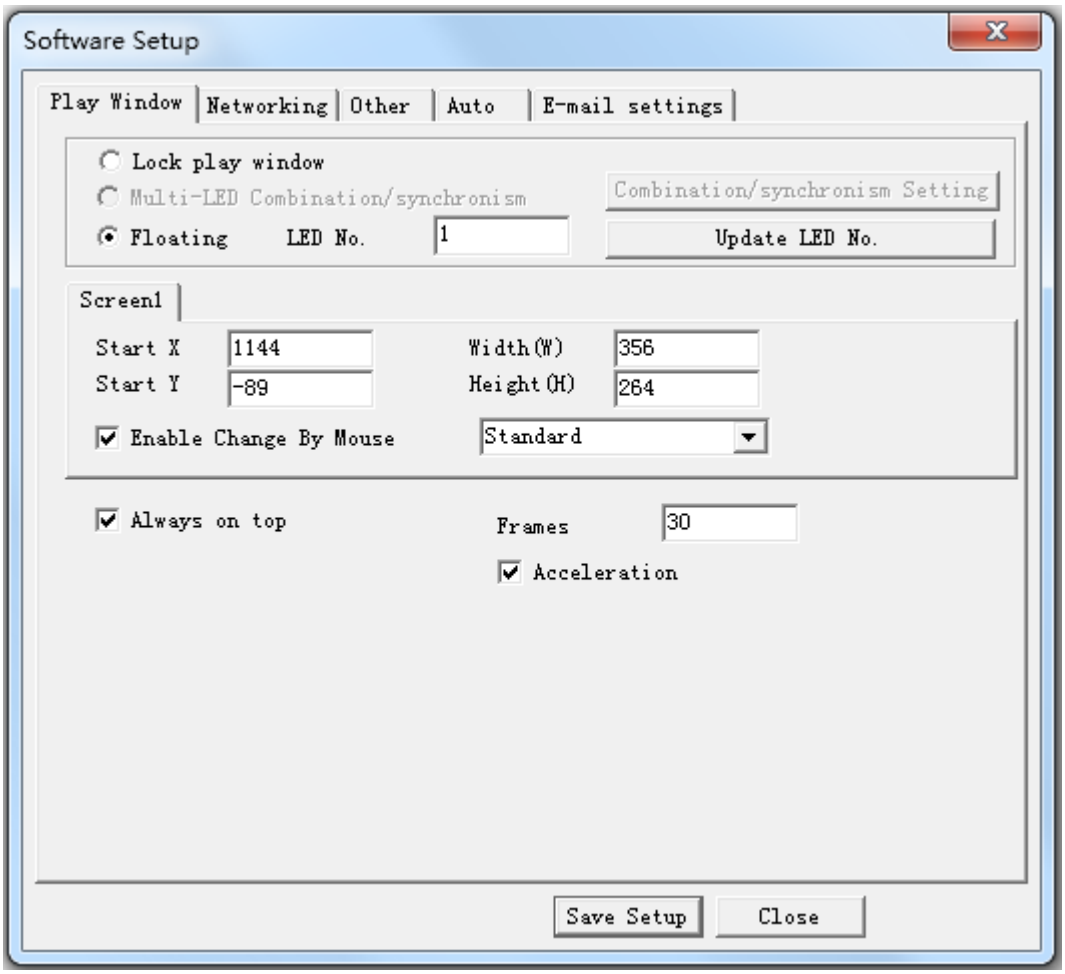
File: type in the File Name for search
Date From TO: select a period of time for search
Show file path: show the path of the file saved in the computer

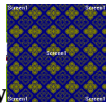
Search: start searching and get record list
File: file name
Degree：how many times the file has been played
Time: total time the file played
Begin time: the starting playing time
Time: time duration the file has been played for
Export: export the search result in Microsoft Excel file format
Print: print the search result
Display detail: when export or print the search result, including the info of **Begin time** and **Time** （12.43 version， it always shows details when Print or export）

Empty Log File: Delete log file.
Log File save as: Save log file.

3. 3 How to make a .lsd file

3.3.1 Play Window Setup



1) Set the **Play Window**  the same size as that of **LED Screen**.

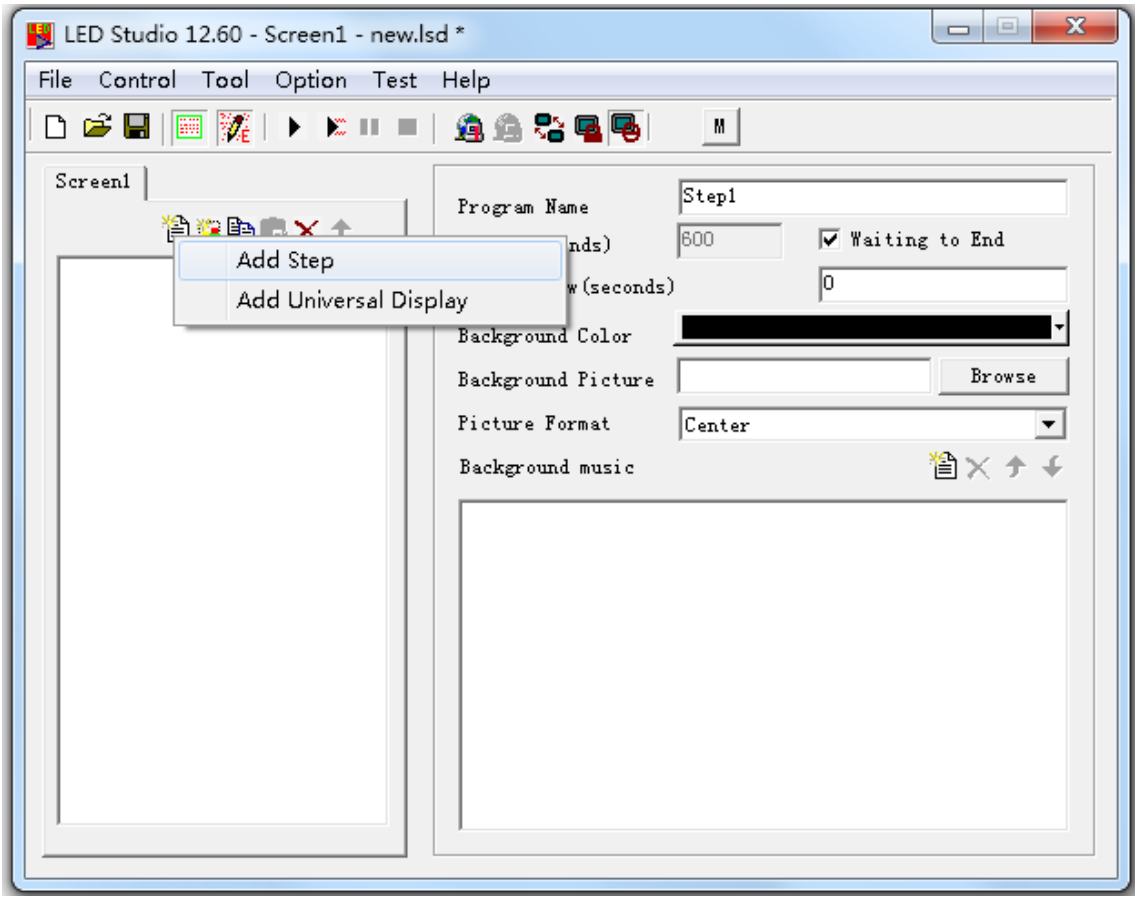
Start X and **Start Y** is (0, 0); Width & Height

2) Select **Lock to LED Screen**. LedStudio will set the Play Window size according to .CON file and Or Select **Floating** to adjust Play Window manually. (Refer to **Software Setup Play Window**) page 39

3. 3. 2 Open a New Page of Program

3. 3. 2. 1 Add Step, Add Universal Display

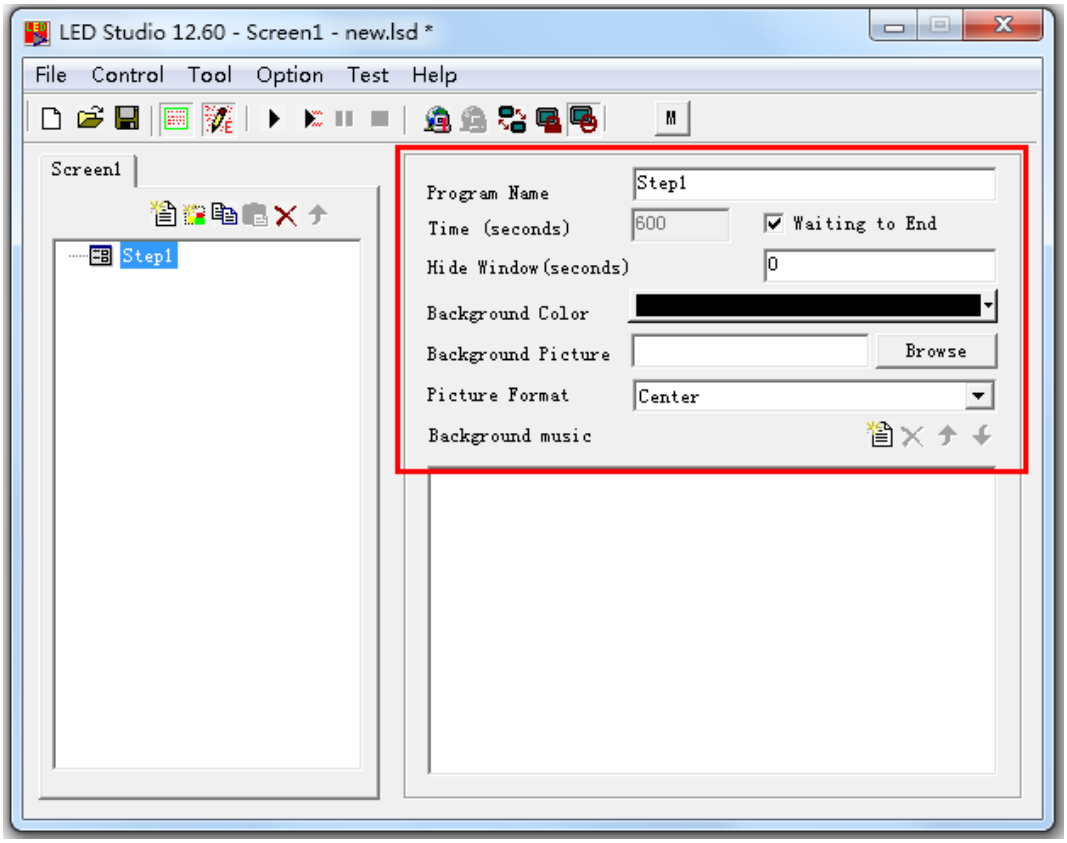
Click **Allow Edit** icon, then **New Page of Program** icon



Add Step: Program can play cycle
Add Universal Display: this kind of Step have loop play independently. **Universal Display** is always at an upper layer of **Add Step**. Usually for Company Logo,etc.
Note: only **one** Unversal Display in an .lsd file

Time Window usually put in **Universal Display** page, if Time Window put under **Step2** for example, then **Step 3** and following Steps will not be played, because Time will never stop. Then Step2 will always be played.

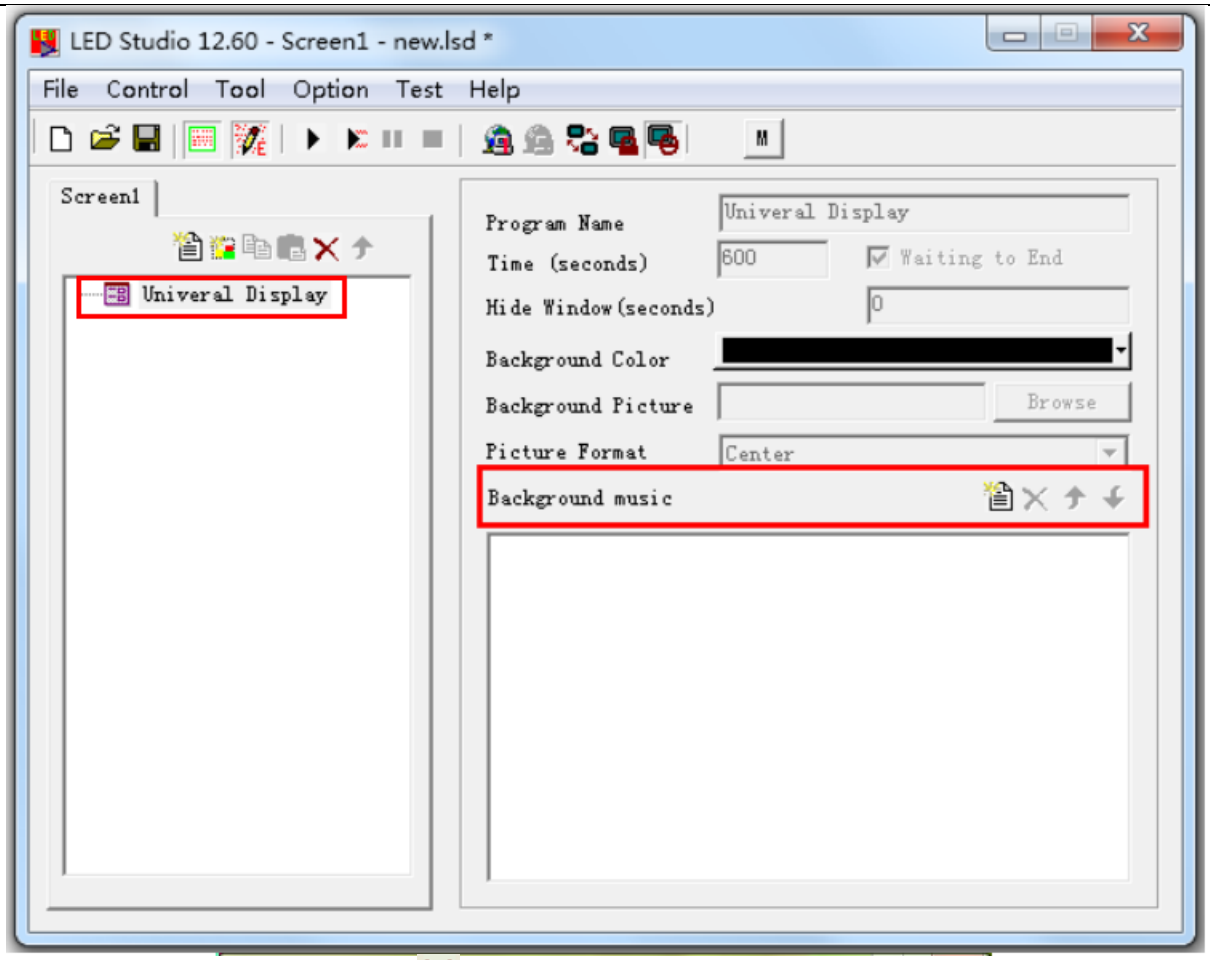
3. 3. 2. 2 Step Settings



Program Name: Change the Step name (Default from Step 1, Step 2, Step 3…)
Time (second): deselect **Waiting to End**, set time durations for the Step. For example, 60, means the **Step1** will be played in 60 seconds, then play **Step2**.
Hide Window (Second): Hide **Play Window** for preset seconds when **Step1** is finished. In the same time, **Step 2** is playing.
Background: Background color of **Play Window**
Background: Background picture of **Play Window**
Picture: Center/Zoom/Stretch/Title the background picture
Background: background music, loop play.

3. 3. 2. 3 Unversal Display Settings

Universal Display Setting: only adding Background Music is available. Normal program page plays in order, while overall program page plays continuously, without any time limits. (Such as time display)

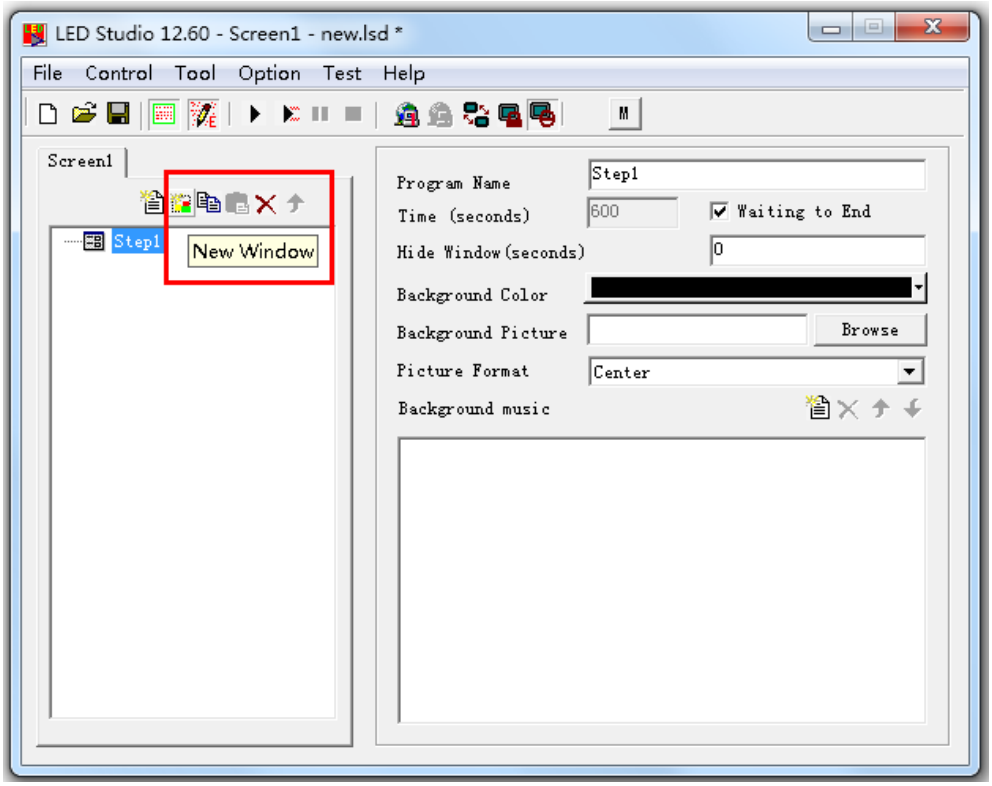


To delete a program page, use the delete button .

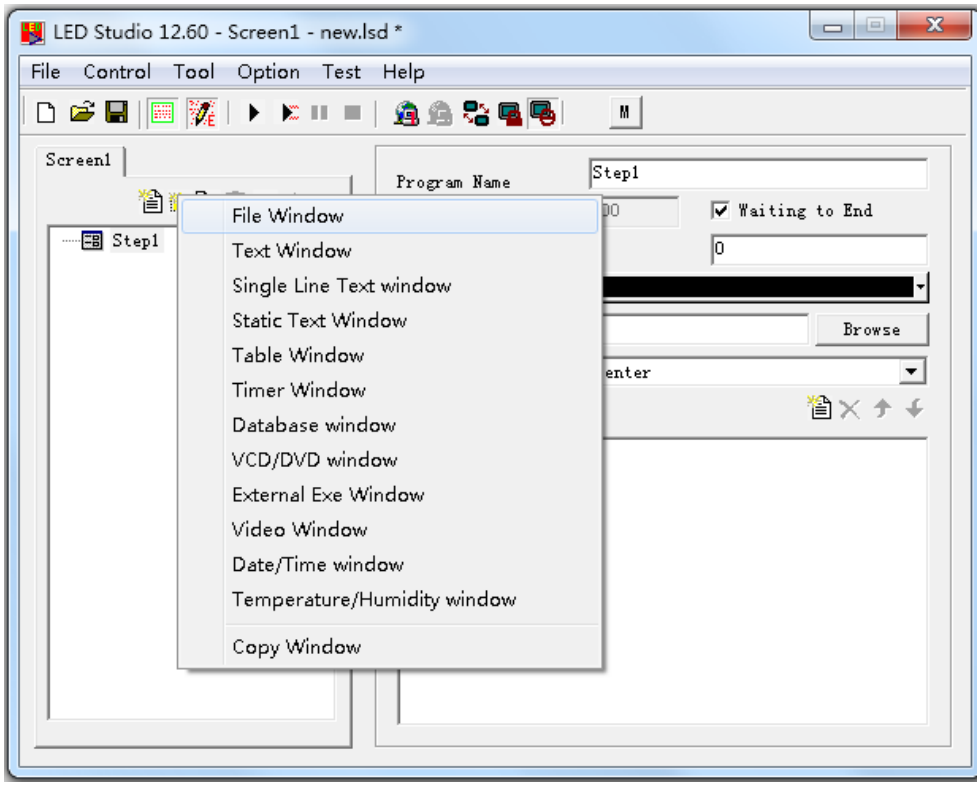
To change the order of page, use the moving button , .

3. 3. 3 Add New Window

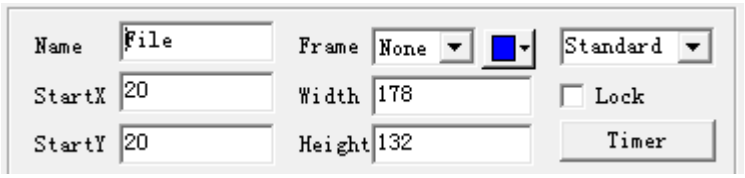
After a **Step** or **Universal Display** is added, the **New Window icon** , Copy icon , Paste icon , Delete icon , are activated. , .



Click: **New Window** icon

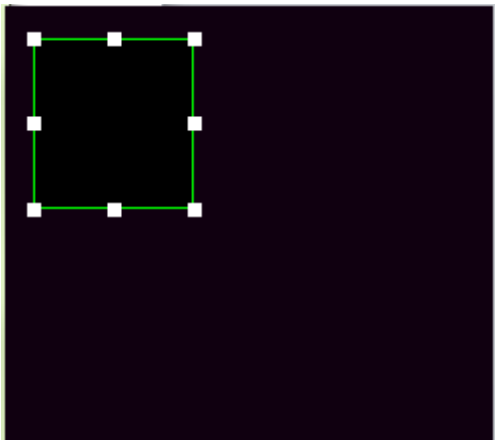


3. 3. 3. 0 Important Notes：



The above window appear in every **New Window**, it is **File Showing Area Setting Window**

File(s) Showing Area Settings: the **Showing Area** (the green rectangle) is inside the **Playing Window**. All files of **File Window** will show inside the **Showing Area**.



Name： Change the default name File

Frame: Frame of Showing Area; **None**, no frame line; **Single line**, one frame line; **Double lines**, two frame lines; **Three lines**, three frame lines

Color: Frame line color

Standard: **Inverted (180)**:

Right (90cw): **Left (90cw)**:

Start X: set the X position of (X, Y) coordination for **Showing Area** in **Play Window**

Start Y: set the Y position of (X, Y) coordination for **Showing Area** in **Play Window**

Width/Height: Set the size of Showing Area

Lock: when lock, mouse pointer cannot drag to move or drag to resize the **Showing Area** inside the **Play Window**

Timer: designed for **Time Window**.

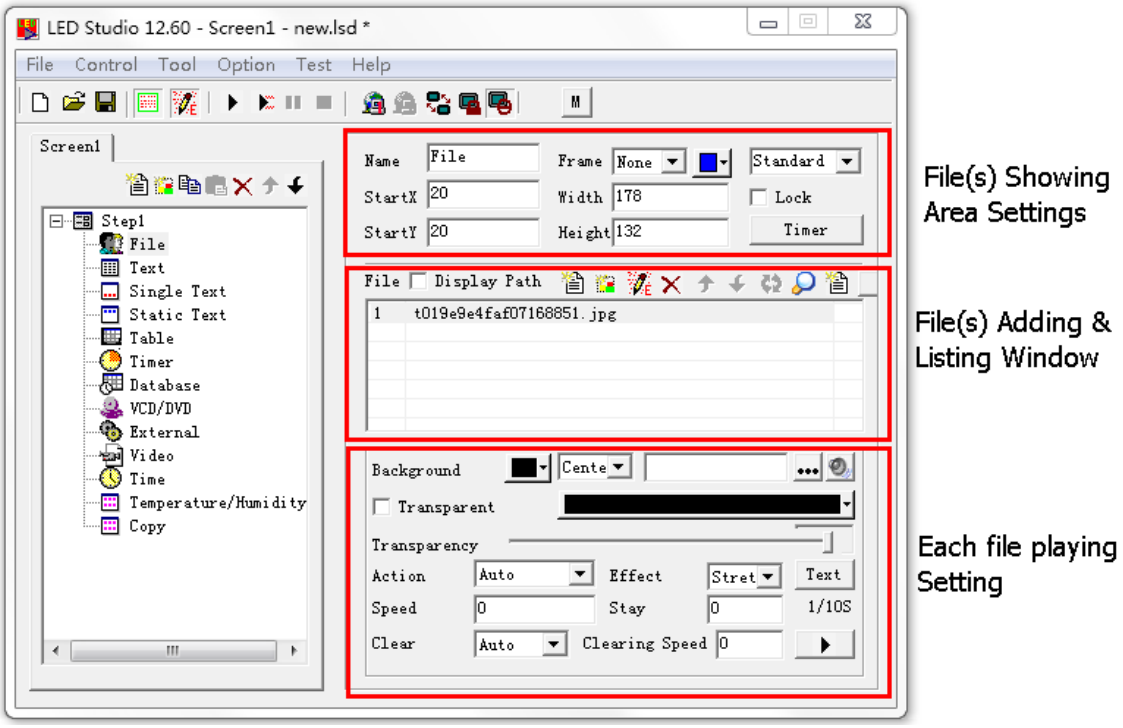
Based on the PC time: By 30 Minute 30 Sec means every 30 minutes of computer clock, **Time Window** appears for 30

seconds. **Time Window** is hidden besides that every 30 seconds.

Based on the playing time: by 30 Second 5 seconds means every 30 seconds of playing time, show **Time Window** for 5 seconds then hides **Time Window**

3. 3. 3. 1 File Window

File window: play various files like documents, pictures, video etc.

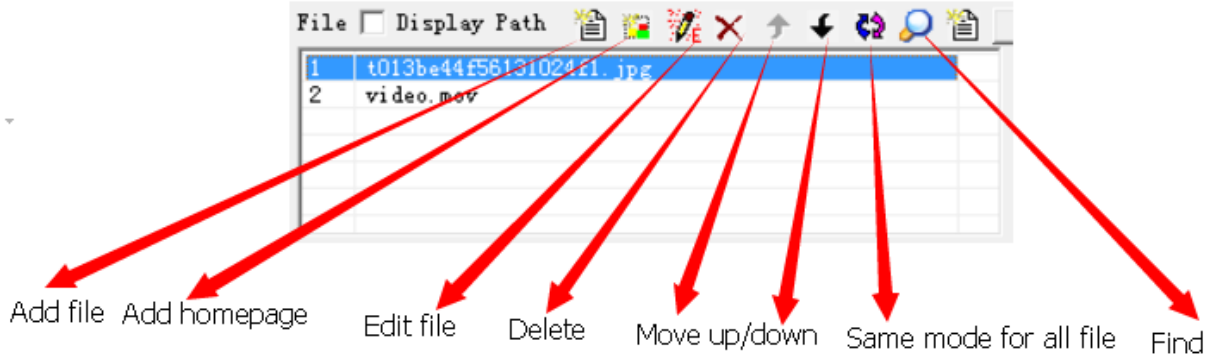


3. 3. 3. 1.1 File(s) Showing Area Settings

File(s) Showing Area Settings: refers to Important Notes

3. 3. 3. 1.2 File(s) Adding & Listing Window

Display Path: Showing the file path in the computer



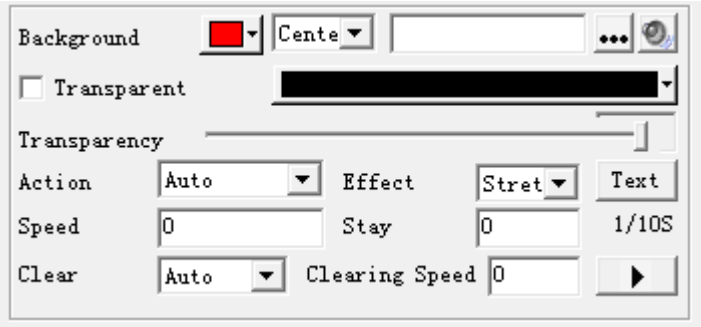
Add File: click **Add File** icon to add a media file.

Add Homepage: add a web link to show web page in **Showing Area**
Edit File: edit the selected file. Open and edit
Delete: delete the selected file
Find: find file(s) in the list

3. 3. 3. 1.3 File Playing Settings

3.3.3.1.3.1 Photo Playing Settings

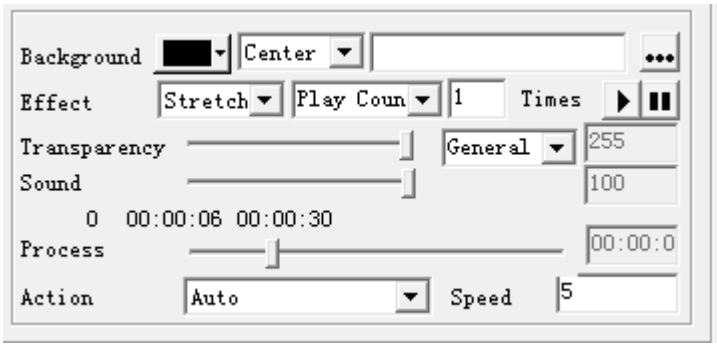
File Playing Settings: settings for the selected file in the **File(s) Adding & Listing Window**
Note: All the settings only effects on the selected file



The above **File Playing Settings** is for **Pictures.**
Background: background color of **Showing Area**
Center/Zoom/Stretch/Tile: effects for background picture
Background picture: background picture for **Showing Area**
Background music: background music when playing the selected file
Transparent: Enable Transparent. The selected color will be filtered.

Action: how the pictures come in
Effect: zoom, stretch, center, tile
Text: add text
Speed: file coming in speed. The larger value, the slower speed
Stay: time duration for file to stay
Clear: how the file is cleared out
Clr speed：clear out speed. The larger value, the slower speed.

3.3.3.1.3.2 Video Playing Settings



Background: background color of **Showing Area**

Center/Zoom/Stretch/Tile: effects for background picture

Effect: the Center/Zoom/Stretch/Tile effect

: test play

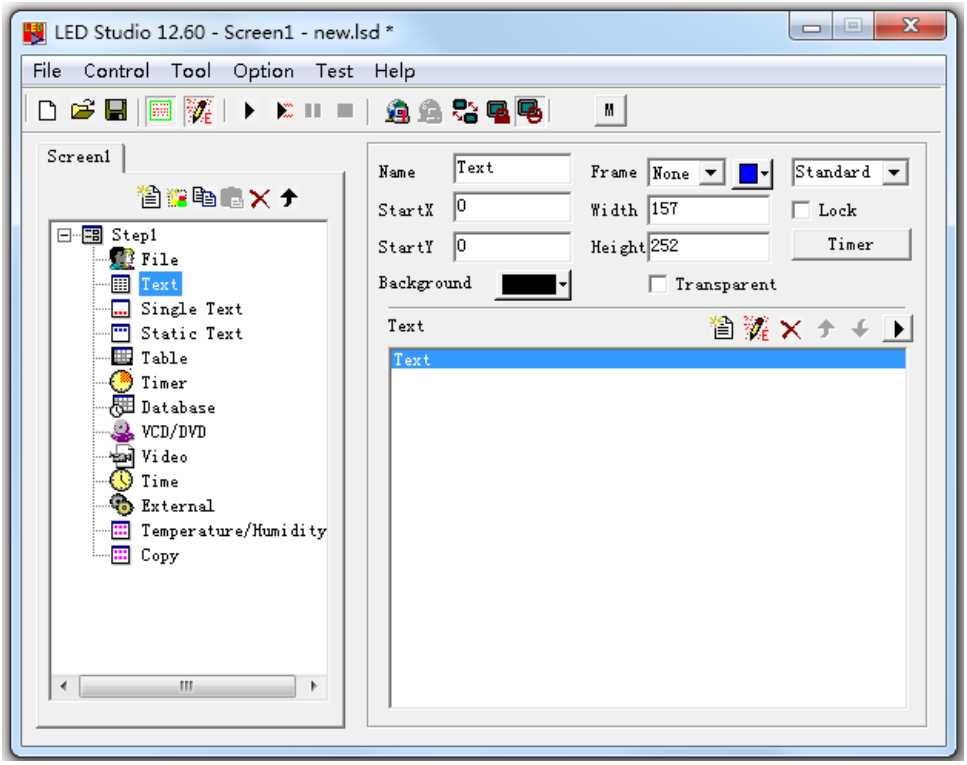
Sound: 0-100. Adjust the sound of the video

Process: show current playing time of video

Action: how video come in

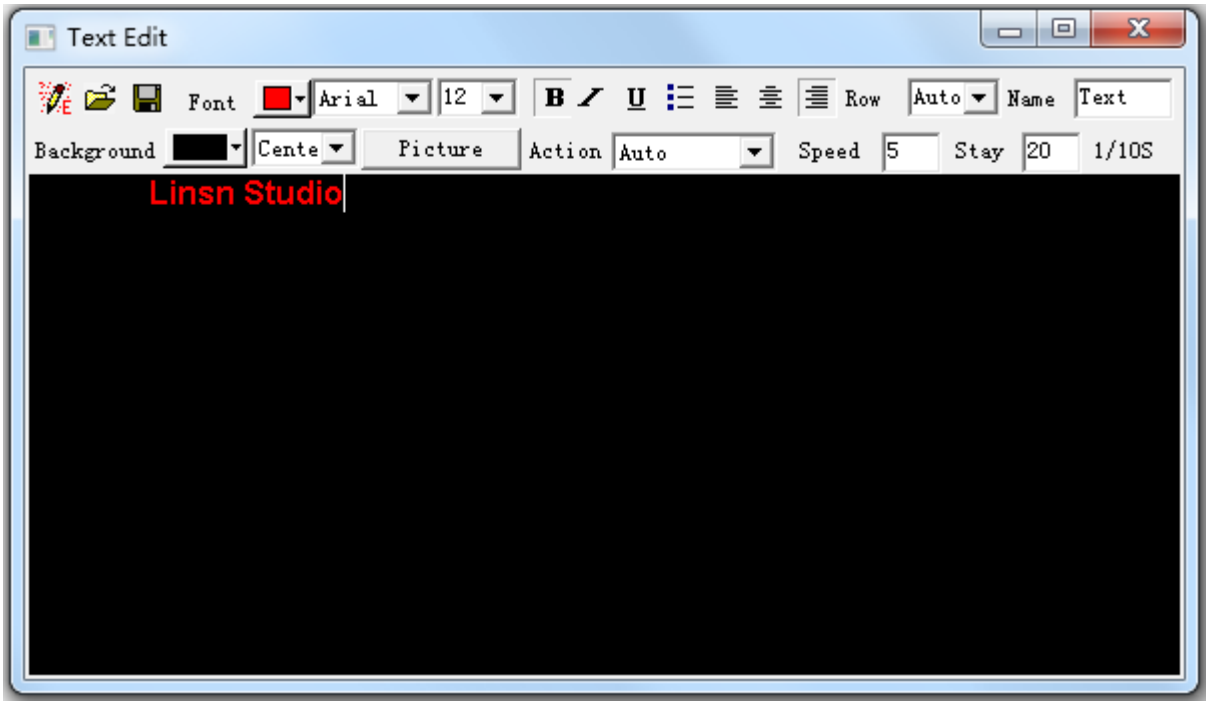
Speed: the coming in speed. The larger value, the slower speed

3. 3. 3. 2 Text Window



Transparent: Transparent the Showing Area background color

Add Text ,



Edit : show/hide the text window

Open : open a .txt file

Save : save as .txt file

Font settiings: Font Arial 12

Name: default as Text

Background Cente Picture Action Auto Speed 5 Stay 20 1/10S

Background color

Pict: picture, background picture.

Center/zoom/stretch/tile effects for background picture

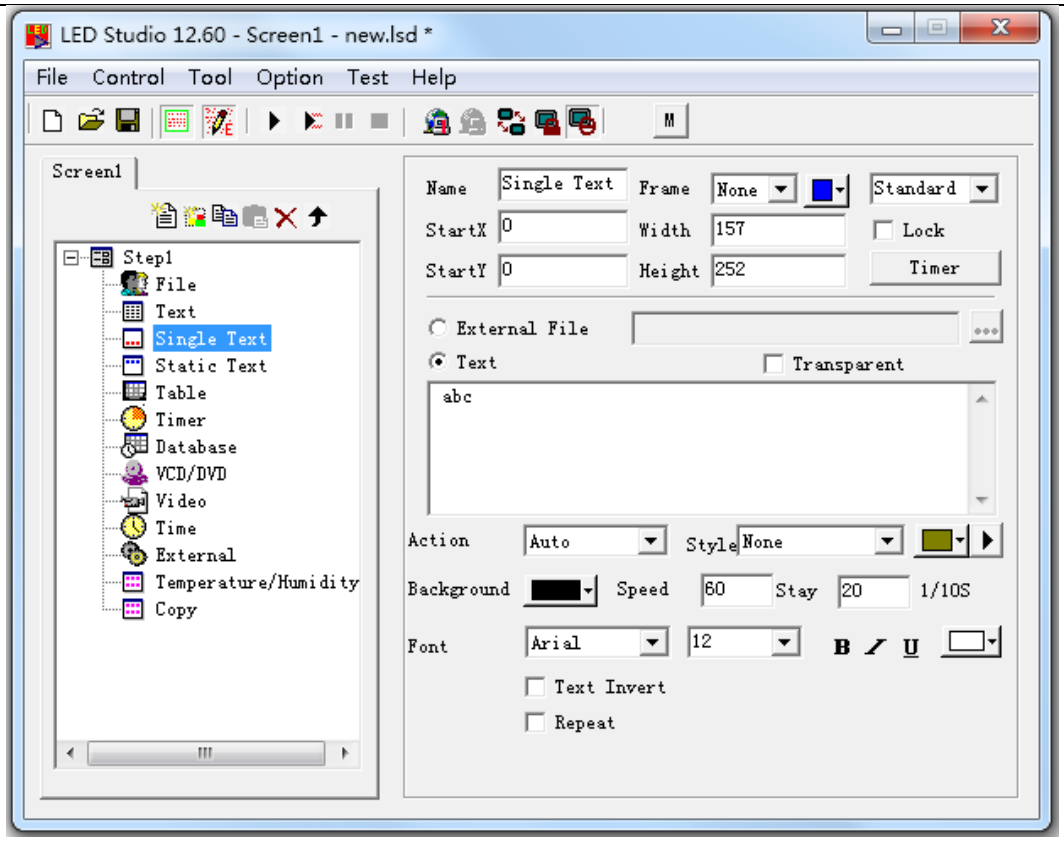
Action: action for background picture

Speed: background picture coming in speed. The larger value, the slower speed

Stay: time duration for background picture to stay

3. 3. 3. 3 Single Line Text Window

Single line text window: to play single line text window



Transparent: only work when **Showing Area** background color is Black. Transparent the black color and show the **Step background color** instead.

External File: open a .txt file

Text: input text

Action: how the text comes in **Showing Area**

Style: add effects to the text. And the color for the effect.

: test play

Background: background color for the text

Speed: Text coming in speed. The larger value, the slower speed

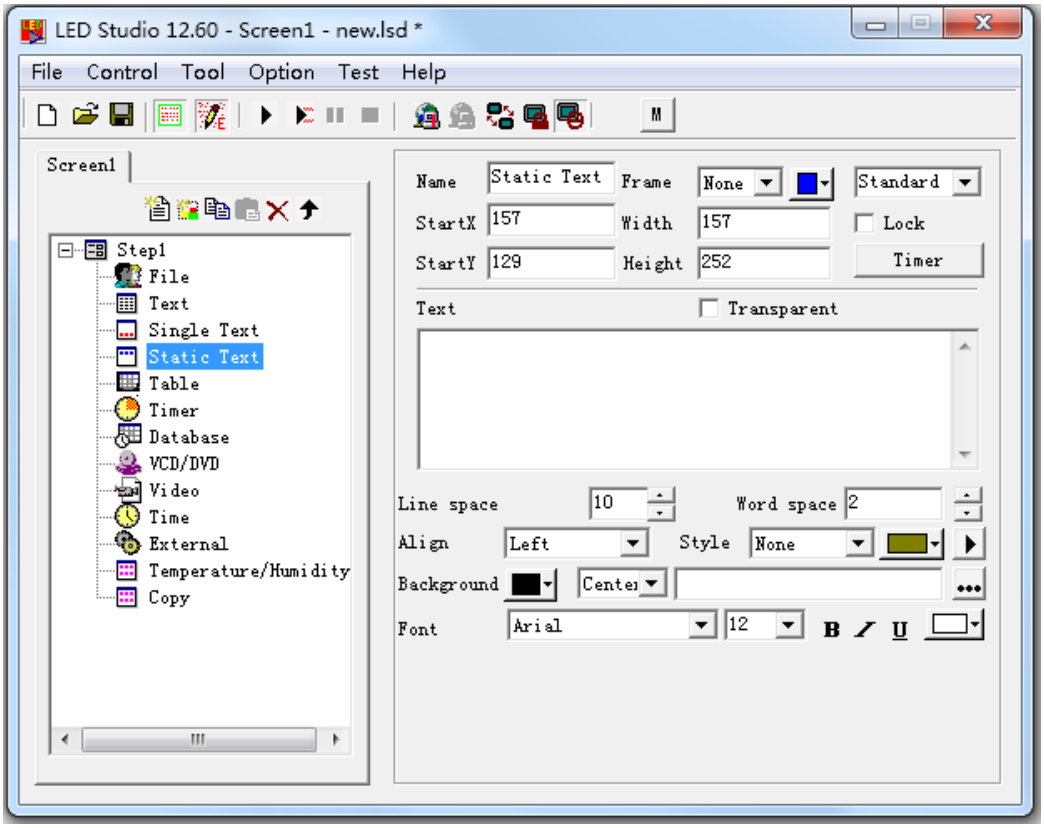
Stay: time duration for text to stay

Font: Font settings for text

Text invert: abc ---- cba

Repeat: abc---abcabcabcabcabc

3. 3. 3. 4 Static Text Window



Transparent: only work when **Showing Area background color** is Black. Transparent the black color and show **Step background color** instead.

Text: text input

Line space: space of text lines

Word space: space of neighboring **words**

Align: left/center/right/left&right

Style: add text effects and color of effect

: test play

Background:

Background color

…: add background picture

Center/zoom/stretch/tile for background picture

Font settings:

3. 3. 3. 5 Table Window

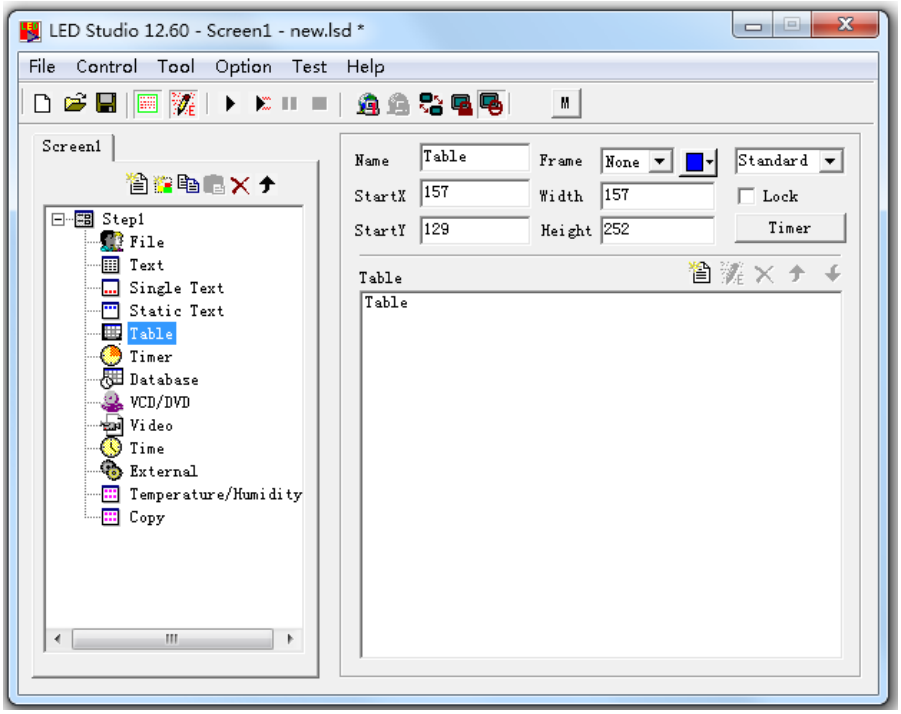
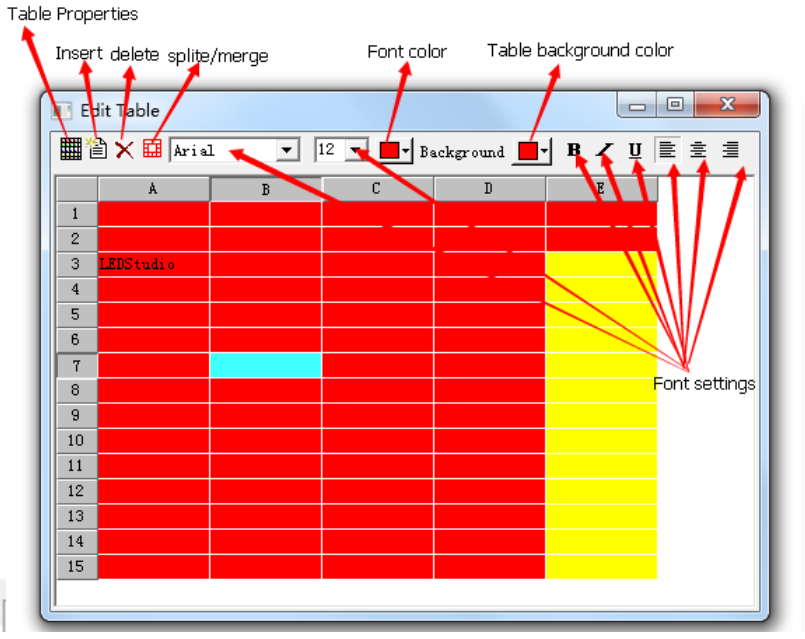
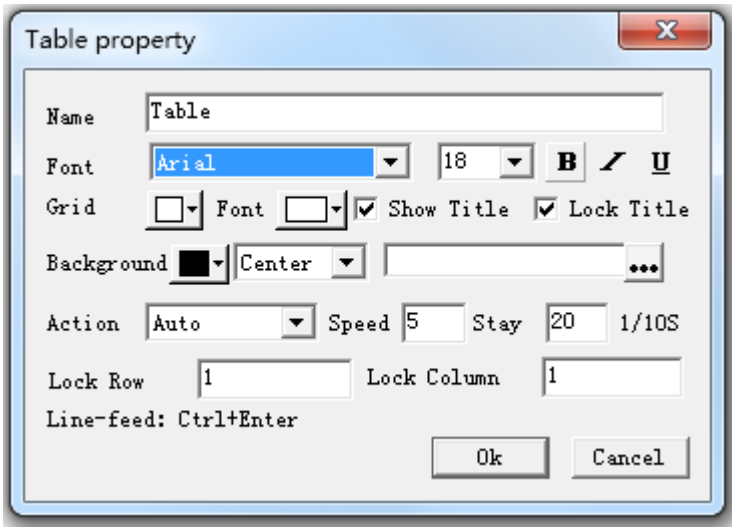


Table Window: Used to edit the play list data.



Add Table

Table Properties:



Name: Title name of the table

Font settings: Title font settings

Grid: the table grid color

Font color: title font color

Show Title: Show/hide Title

Lock title: when title is locked. Title stays still while Action effect taking place.

Action: table effects

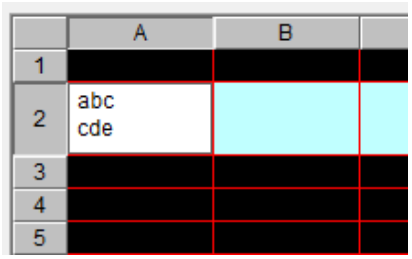
Speed: table coming in speed. The larger value, the slower speed

Stay: time duration for table to stay

Lock row: for example, Lock Row 2, the second row will stay. This only works in Up/Down Action effects.

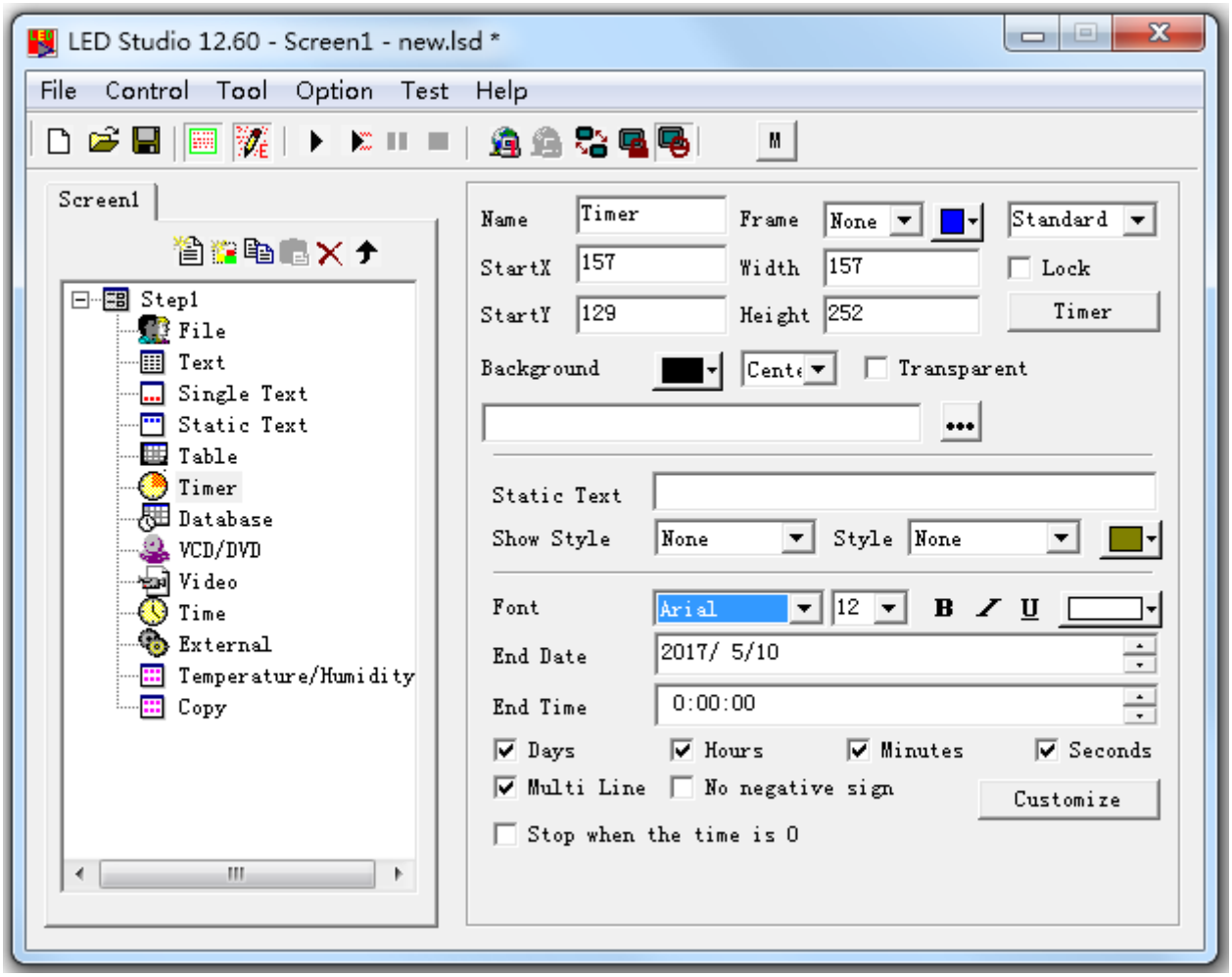
Lock Column: for example, Lock Column 2, the second column will stay. This only works in Left/Right Action effects.

Ctrl+Enter: start a new line within a single table



3. 3. 3. 6 Timer Window

Timer window: Used for countdown

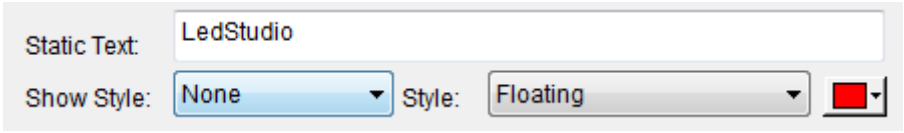


Bkg: background color for Timer

Center/zoom/stretch/tile for background picture

…: background picture for Timer

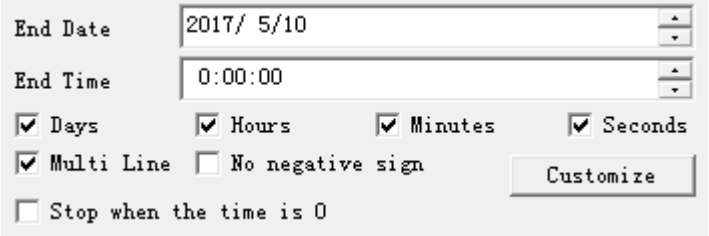
Transparent: only work when **Showing Area background color** is Black. Transparent the black color and show **Step background color** instead.



Static Text: text input

Style: add effects to text and color for effect

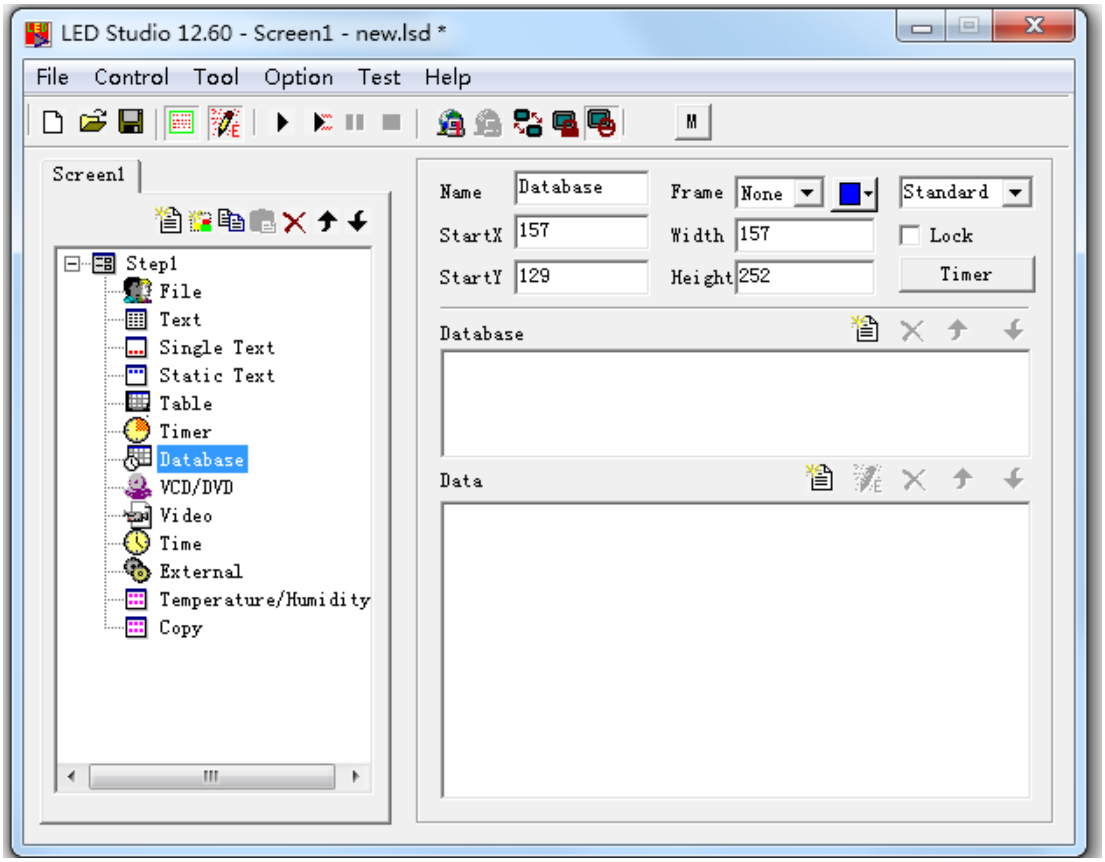
Font settings for Text.



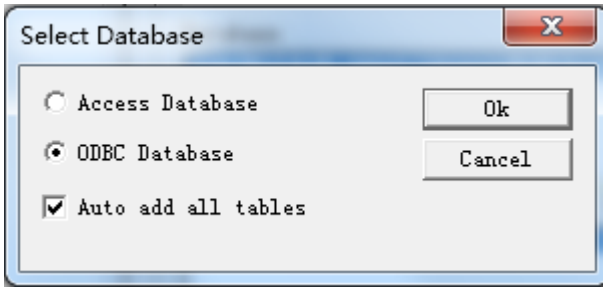
End Date: Date for timer to countdown to
End Time: Time for timer to countdown to
Days/Hours/Minutes/Seconds: show/hide when countdown
Multi Line: enable or disable multi line showing
No negative sign: when countdown pass the End Time, do not show the – in the timer.
Zero stop: stop when Timer finish countdown
Customize: customize the time format for countdown

3. 3. 3. 7 Database Window

Database window: Used to play ACCESS database and ODBC driver data base.



Add Database



Database Settings

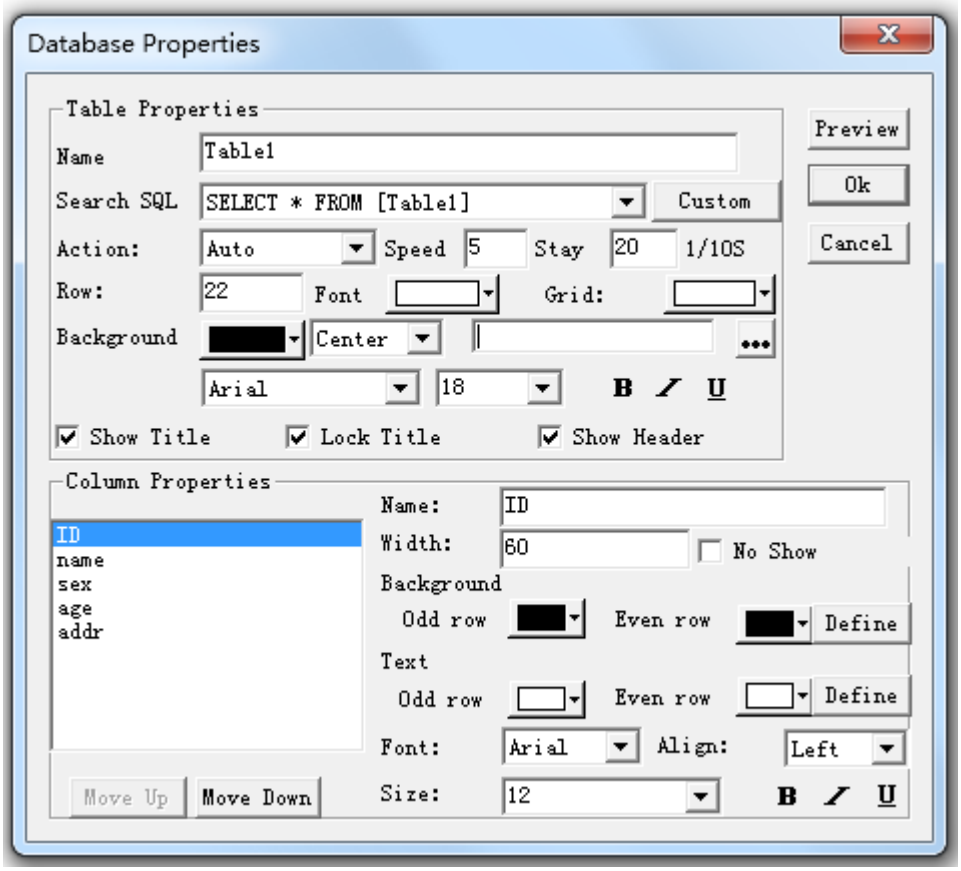
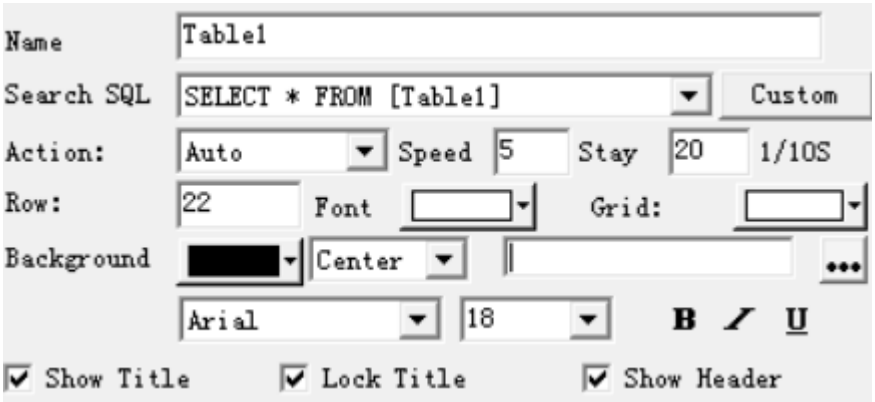


Table Properties



Find SQL: select the database that you want

Scripti-: Scripting

Action: effects for how the table comes in **Showing Area**

Speed: table's coming-in speed. The larger value, the slower speed

Stay: time duration for table to stay

Row (in pixels): the height for a row

Font: Table1 color

Grid: table grid color

Backgr: background color of table

…: add background picture for table

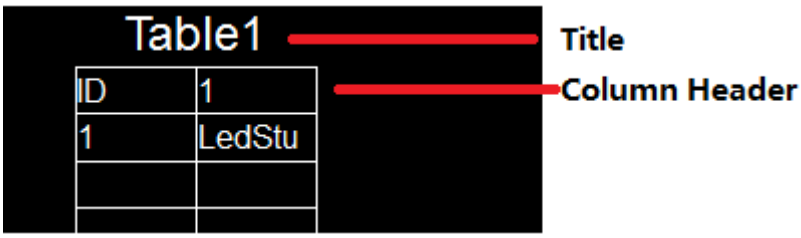
Center/zoom/stretch/tile for background picture

Font settings for Table1:

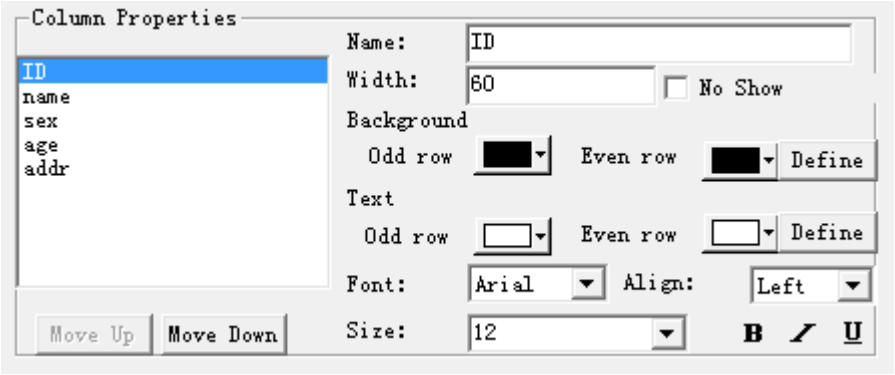
Show title: hide/show Table title

Lock title: when title is locked. Title stays still while Action effect taking place.

Show header: show/hide the **Column** header



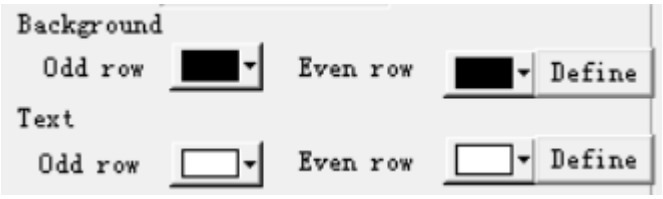
Column Properties



Name: column name

Width: column width in pixels

No Show: hide the selected column



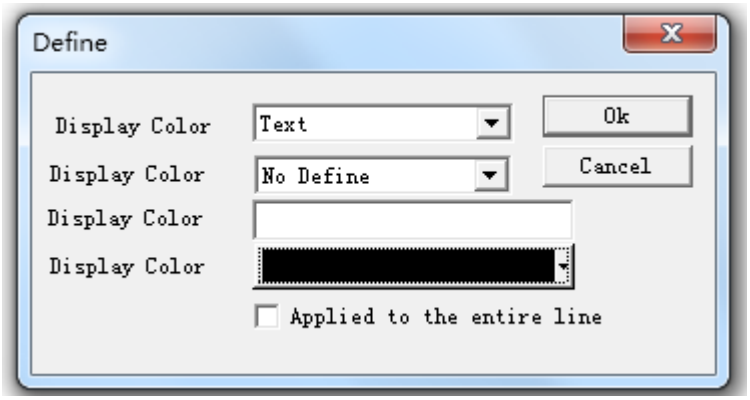
Background odd: background color of column header

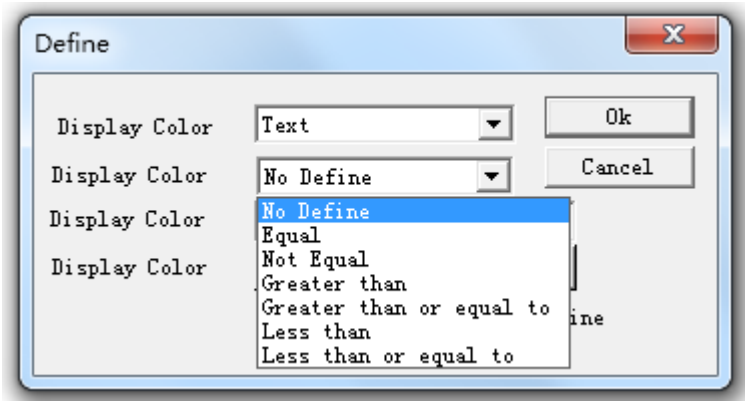
Background even: background color of column data

Text odd: column header font color

Text even: column data font color

Define: define a rule to apply color

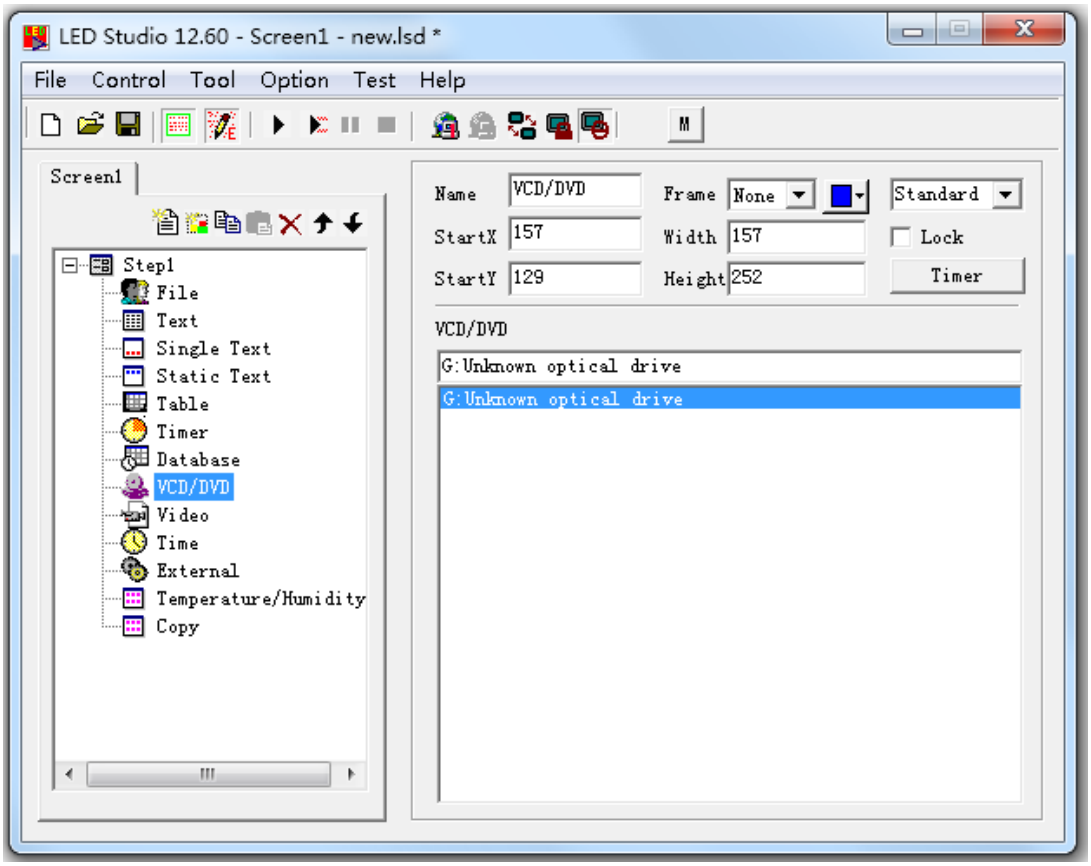




Font settings of selected column:

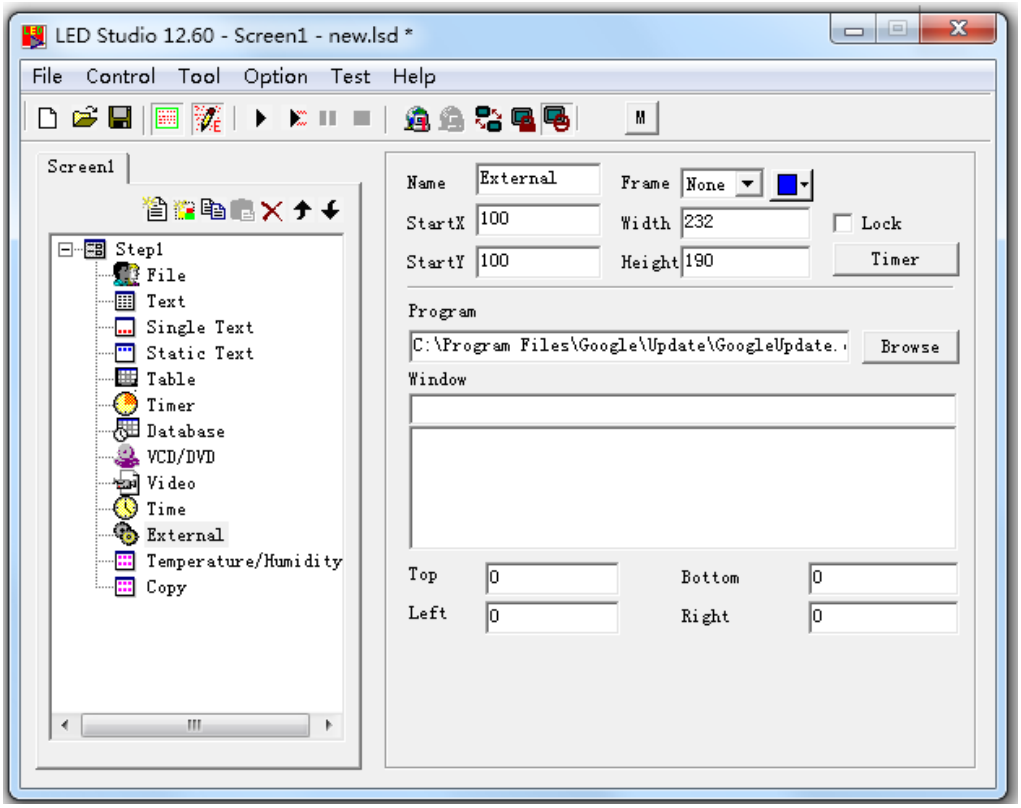
3. 3. 3. 8 VCD/DVD Window

DVD/VCD window: play DVD/VCD in **Showing Area**



3. 3. 3. 9 External Exe Window

External Program Window: run a .exe program inside Play Window



Browse: Browse to select an .exe program

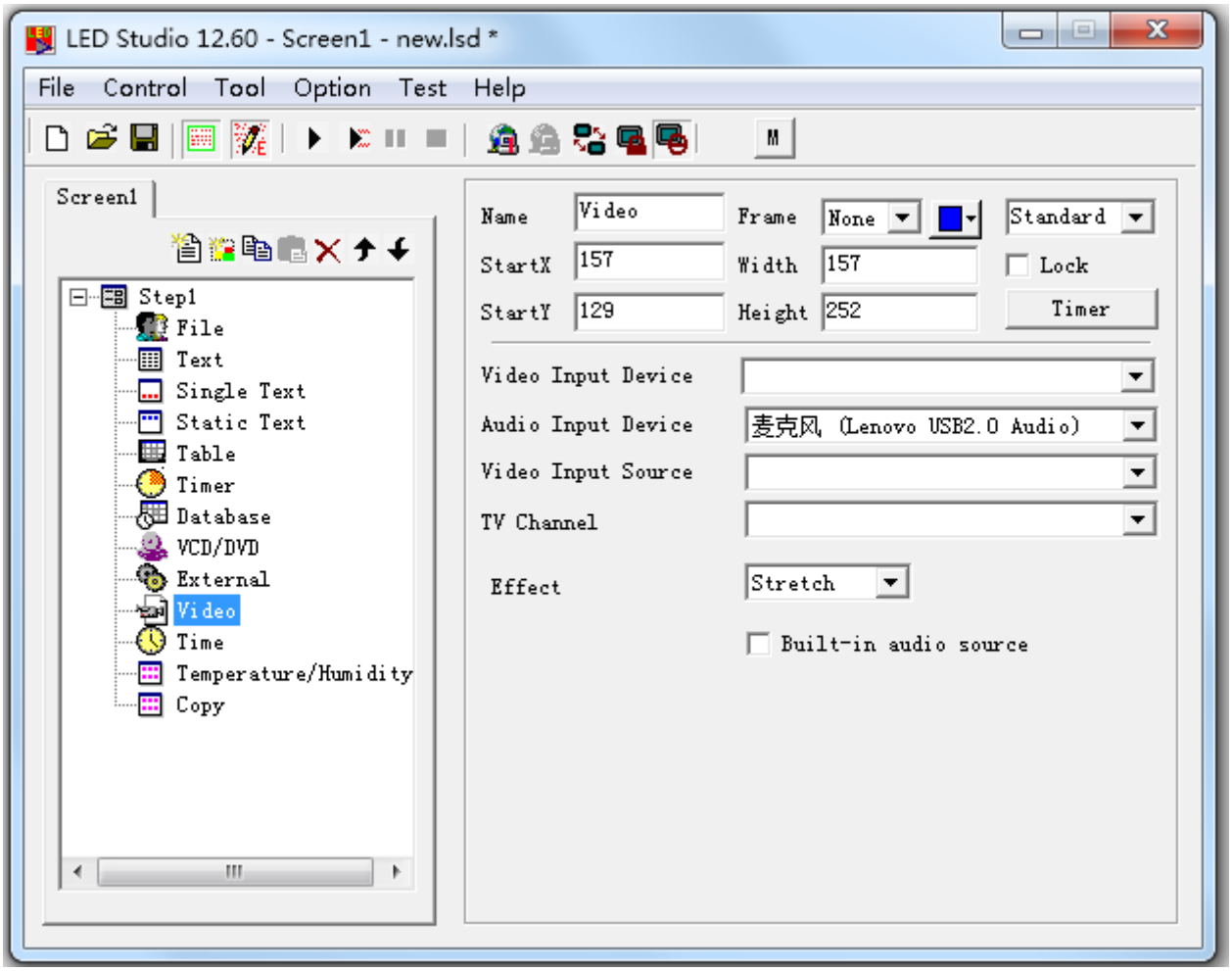
Window Name: Select a .exe listed to run in Play Window

Top/Bottom/Left/Right Margin: set the position of the .exe program

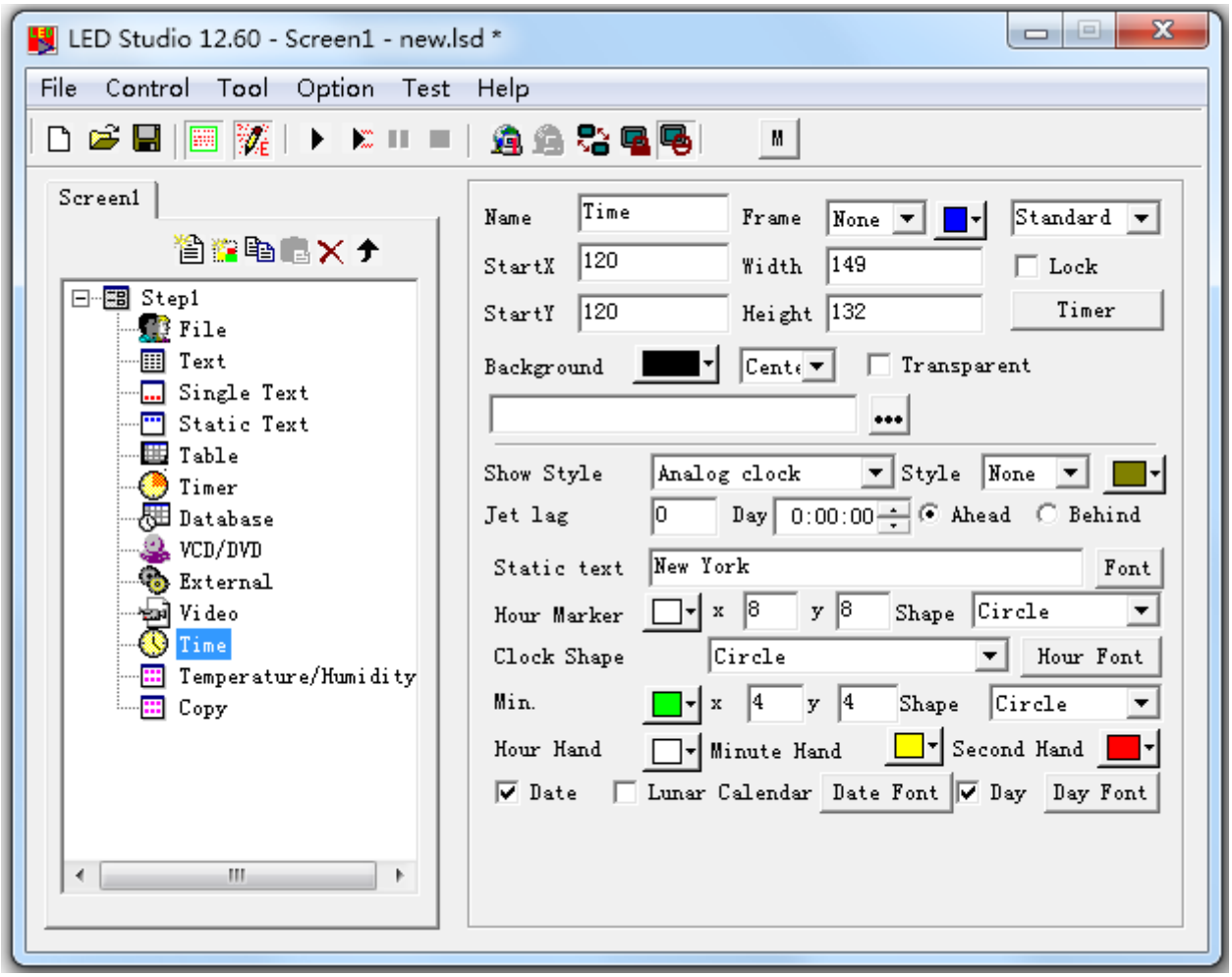
3. 3. 3. 10 Video Window

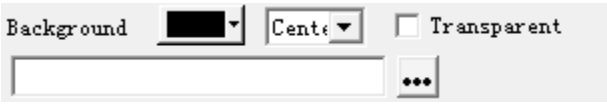
Video Window： Read Video/audio source from capture card and show on Play Window

LEDStudio will detect what video/audio sources are available from the computer. Select a source and show on Play Window.



3. 3. 3. 11 Date/Time Window





Background color for Time

Center/zoom/stretch/tile for background picture

…: background picture for Timer

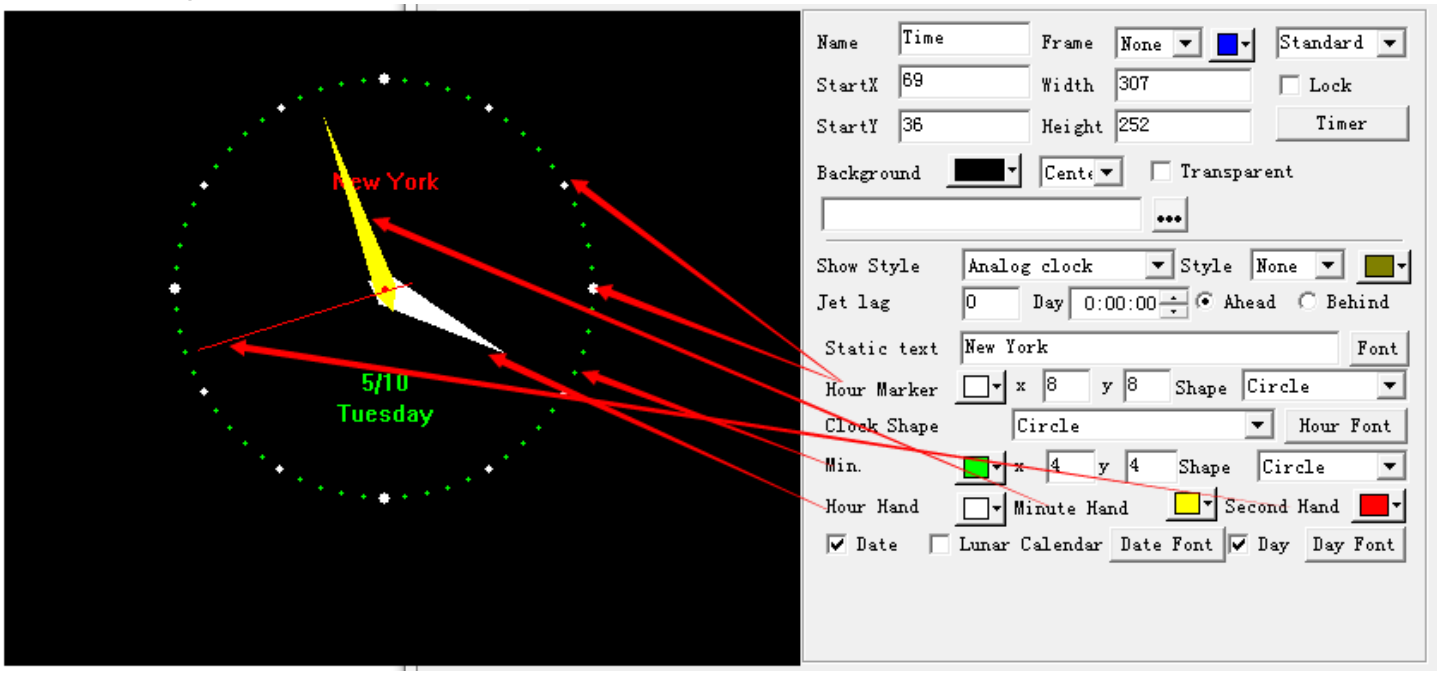
Transparent: only work when **Showing Area background color** is Black. Transparent the black color and show **Step background color** instead.

Style: Time style

Style: effects for Time (not for Analog clock) and effect color

Static text: text show together with Time

Font: font settings for static text



Time Day Ahead/Behind: adjust the Time Ahead or Behind computer time

Hour X, Y: width and height for Hour

Minute X, Y： width and height for Minute

Clock: shapes for Analog clock

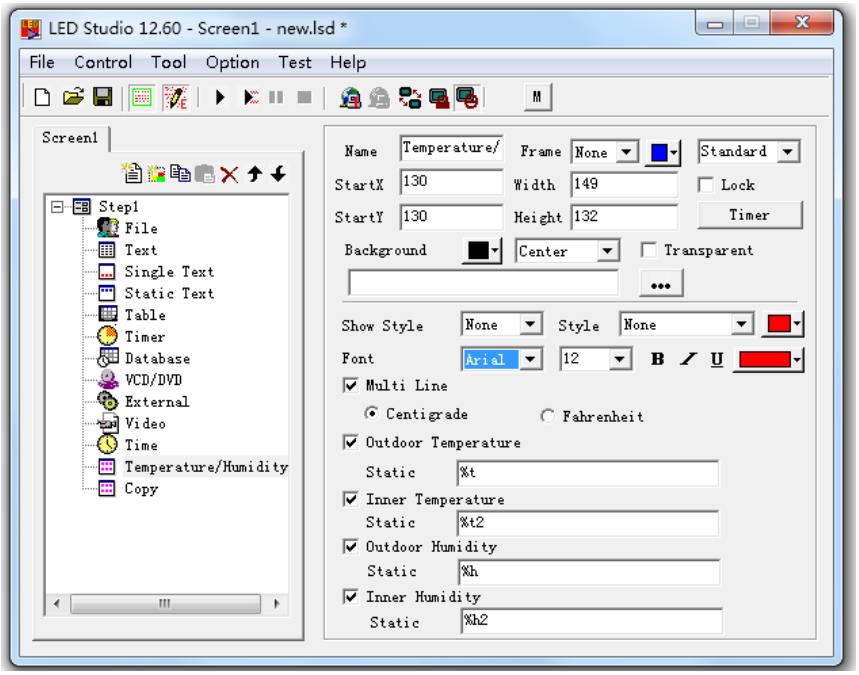
Hour Font: font setting when shape is Digit

Date/Day: show/hide Date/Day

Date Font/Day Font: font settings

3. 3. 3. 12 Temperature/Humidity Window

This is used to display temperature and humidity.



Background color: means the backgroungd color of Temperature/Humidity

Center/zoom/stretch/tile for background picture

…: background picture for Temperature/Humidity

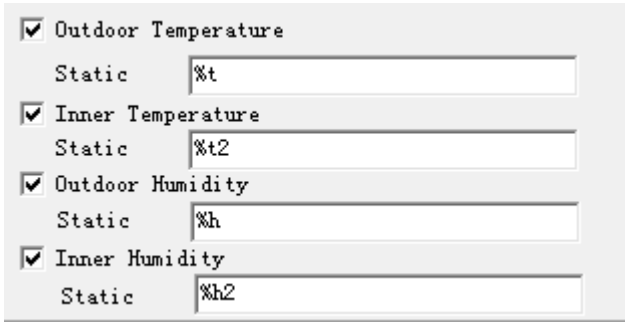
Transparent: only work when **Showing Area background color** is Black. Transparent the black color and show **Step background color** instead.

Style: add effects to text and color for effect

Font settings for Text.

Multi-line: show between multi-line and single line

Show temperature in different unit



Add text before/after Temperature/Humidity Value

3. 3. 3. 13 Copy Window

StartX, StartY: set position of Copy Window

Width, Height: set size of Copy Window

Frame Extracting: for example: Per 10 extracting 5 pixels means in every 10 pixels, extract the last 5 pixels.

3. 3. 4 Save Program

Click saving button or click File Menu, then the file can be saved.

3. 3. 5 Play Program

: Play from the first program

: Play current program

: Pause

: Stop

: To play .lsd file a saved before.

4.4 3D Display

Load and open the video in Ledstudio, right-click on the video - choose **Around the screen** or **Up and down screen** according to your video.

For example, choose **Around the screen** and select **3D Play** for the following video.

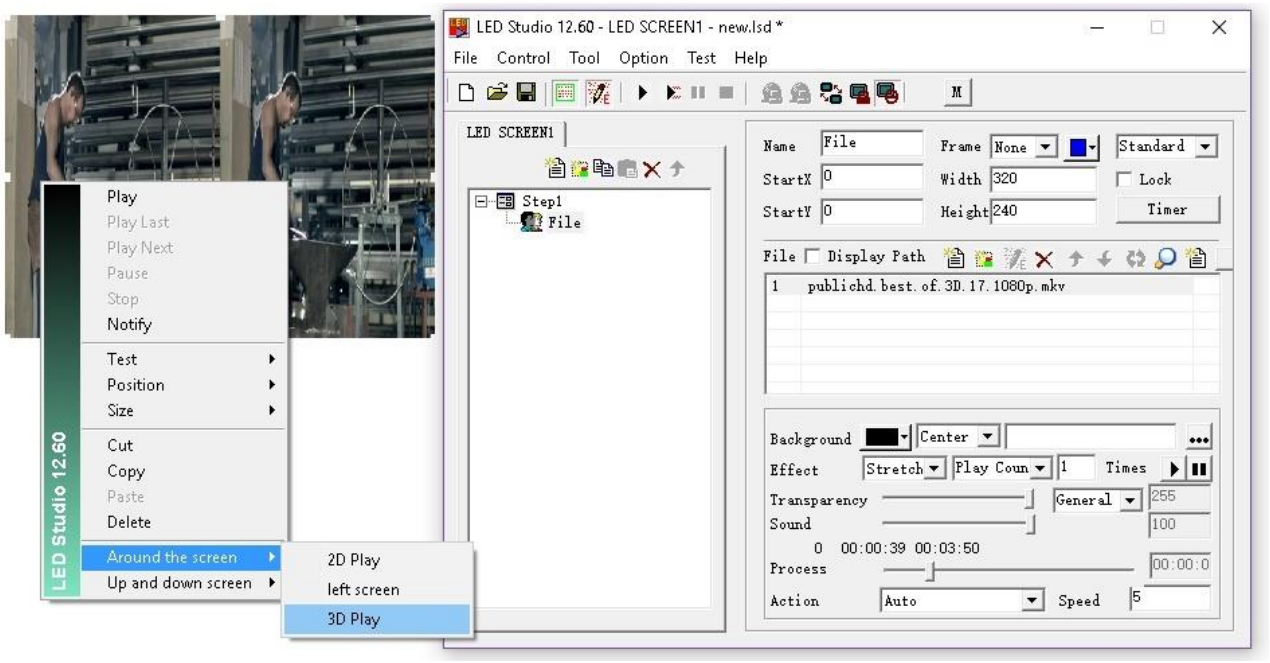


Figure 1 Settings for **around the screen** type video

After choosing the **3D Play** effect, a 3D video would be generated through ledstudio's algorithm as follow.

END