

LEDStudio User's Manual

V12.65



Table of Contents

Chapter1 Introduction	5
1.1. Features	5
1.2. Requirements	5
1.3. What's New in LEDStudioV12.64	5
1.4. What's New in LEDStudioV12.65	5
Chapter2 Installation	6
2.1. Installation	6
Chapter3 How to Run LEDStudio	7
3.1. LEDStudio Interface	
3.2. LEDStudio Menus	8
3.2.1. File Menu	8
3.2.1.1. New	
3.2.1.2. Open	8
3.2.1.3. Save	8
3.2.1.4. Save As	
3.2.1.5. Recent files	
3.2.1.6. Log off	9
3.2.1.7. Exit	9
3.2.2. Control Menu	9
3.2.2.1. Play	9
3.2.2.2. Play Last	
3.2.2.3. Play Next	10
3.2.2.4. Pause	10
3.2.2.5. Stop	10
3.2.2.6. Notify	10
3.2.2.7. Score Manager	12
3.2.2.9. Stop PowerPoint File	15
3.2.2.10. Play VCD/DVD	15
3.2.2.11. Backup Program	15
3.2.2.12. Manager for LED Screen Sever (online)	15
3.2.2.13. Manager for LED Screen Sever (offline)	15
3.2.2.14. Insert Video	15
3.2.2.14. Split wnd	15
3.2.3. Tool Menu	19
3.2.4. Option Menu	20
3.2.4.1. Play Background/Foreground	20
3.2.4.2. Schedule Table	
3.2.4.3. Schedule Hide Setup	24



3.2.4.4. Language	25
3.2.4.5. Show play window/Hide play window	
3.2.4.6. Software Setup	
3.2.4.6.1. Play Window	
3.2.4.6.2. Networking:	
3.2.4.6.3. E-mail settings	
3.2.4.6.4. Auto	38
3.2.4.6.5. Other	39
3.2.4.7. User Setup	40
3.2.4.8. Hardware Setting	
3.2.5. Test Menu	42
3.2.5.1. Grey Test 1	42
3.2.5.2. Grey Test 2	
3.2.5.3. Grid Test	42
3.2.5.4. Dot Test	
3.2.5.5. Color Bar Test 1	44
3.2.5.6. Color Bar Test 2	44
3.2.5.7. Aging	45
3.2.5.8. Check Position	45
3.2.5.9. Check Color	45
3.2.6. Help Menu	46
3.2.6.1. Help	46
3.2.6.2. Knowledge	46
3.2.6.3. Check IP Address	46
3.2.6.4. Play File List	46
3.3. How to make a .lsd file	47
3.3.1. Play Window Setup	48
3.3.2. Open a New Page of Program	48
3.3.2.1. Add Step, Add Universal Display	48
3.3.2.2. Step Settings	50
3.3.2.3. Universal Display Settings	50
3.3.3. Add New Window	51
3.3.3.1. File Window	54
3.3.3.1.1. File(s) Showing Area Settings	55
3.3.3.1.2. File(s) Adding & Listing Window	55
3.3.3.1.3. File Playing Settings	56
3.3.3.2. Text Window	58
3.3.3.3. Single Line Text Window	59
3.3.3.4. Static Text Window	61
3.3.3.5. Table Window	62
3.3.3.6. Timer Window	64
3.3.3.7. Database Window	67



3.3.3.8. VCD/DVD Window	71
3.3.3.9. External Exe Window	72
3.3.3.10. Video Window	73
3.3.3.11. Date/Time Window	
3.3.3.12. Temperature/Humidity Window	75
3.3.3.13. Copy Window	77
3.3.4. Save Program	78
3.3.5. Play Program	78
3.4. 3D Display	79
3.5 Release program for L series	
3.5.1. Sending Program via USB Flash Drive	80
3.5.2. Releasing Program over Network	80
3.5.2.1. Releasing Program with LAN cable	80
3.5.2.1.1. Obtain IP address automatically	80
3.5.2.1.2. Set a specific IP address	83
3.5.2.2. Releasing Program over WIFI hotspot from L series	86
3.5.2.2.1. Setting up via PC	86
3.5.2.2.2. Setting up via LEDStudio	87
3.5.2.3. Releasing Program over WIFI	



Chapter1 Introduction

1.1. Features

LEDStudioV12.65 is a LED Display software for Linsn LED Display Control System.

By using LEDStudioV12.65 you can **edit and play programs** on LED Display;

To set up LED display with Linsn LED Display Control System, please install LedSet.

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 (or HDMI port, but requires HDMI-to-DVI cable) provided by Graphics Card or Motherboard

A USB port

1.3. What's New in LEDStudioV12.64

Compared to the classic LEDStudioV9.6-12.63, this new version 12.64 has the following features:

- You can add videos/pictures by dragging them to the certain area, see <u>Tips</u> at page 56
- You can edit the program while the files is playing
- Single line text window can show text in 3/6 colors, see <u>color text</u> at page61
- One-click to set the whole **software** back to factory mode, see <u>Tips</u> at page 26

1.4. What's New in LEDStudioV12.65

- Management for L series, see L series at page80
- Split window for ultra-long LED screen, see <u>Split wnd</u> at page 15



Chapter 2 Installation

2.1. Installation

Follow the steps below to install and run LEDStudioV12.65

- 1. Download LEDStudioV12.65 (contains LedSet installer) from www.linsn.com (this is the only official website from Linsn) or get it from the CD-Disk coming with the sending card.
- Double-click the LEDStudio-12.65.exe and follow all the on-screen instructions.
 Note: After installing LEDStudio, you will get the final page as follows. You can decide whether to install LedSet or not. (LedSet is for setup such as generating .RCG&.CON, etc. For more details on using LedSet, please check LedSet User's manul)





3. LEDStudio shortcut icon

will be generated on desktop after installation.

6/89

Official website: www.linsn.com

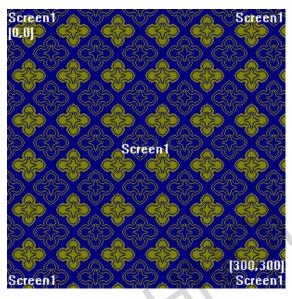
20190717

Chapter3 How to Run LEDStudio

3.1. LEDStudio Interface

When you open LEDStudio, two windows will pop up:

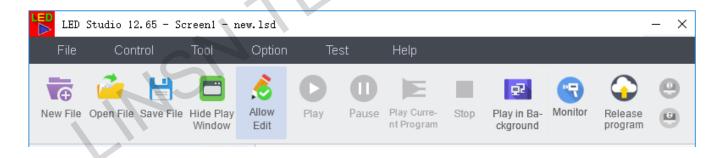
•Play window



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

Control window/panel

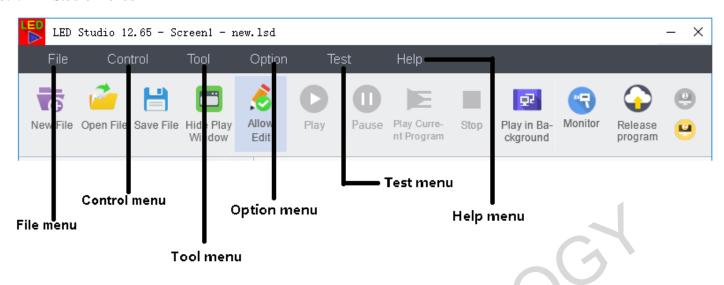
Official website: www.linsn.com



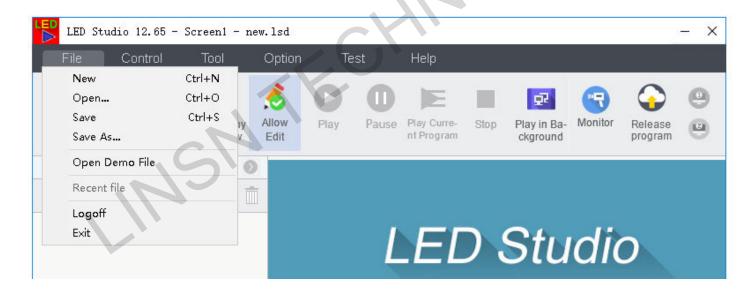
7 / 89 20190717



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.

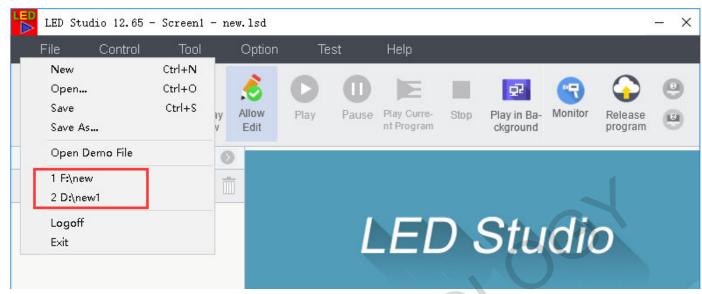
Official website: www.linsn.com

8/89 20190717



3.2.1.5. Recent files

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



3.2.1.6. Log off

Log off: log off LEDStudio to prevent further operation.

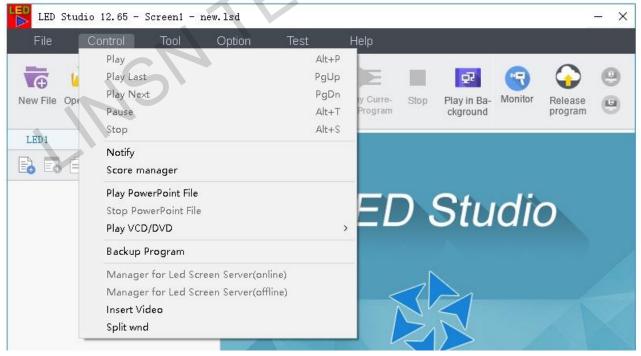
Note: This is related to the **User Setup** in **Option** menu.

You won't need to log off if you don't set up a new user.

3.2.1.7. Exit

Exit: exit LEDStudio.

3.2.2. Control Menu



3.2.2.1. Play

Play: Start playing program file (**Step** by **Step**).

Official website: www.linsn.com

9 / 89 20190717



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.

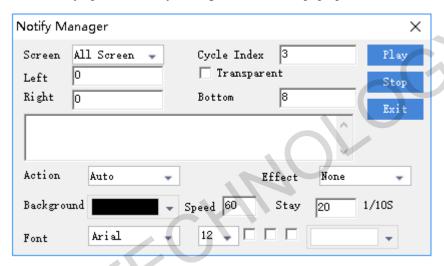
3.2.2.4. Pause

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. Set the black background to transparent. (Check the example

shown below)

Action: how the Notify Message come into Play Window

Effect: effects for Notify Message

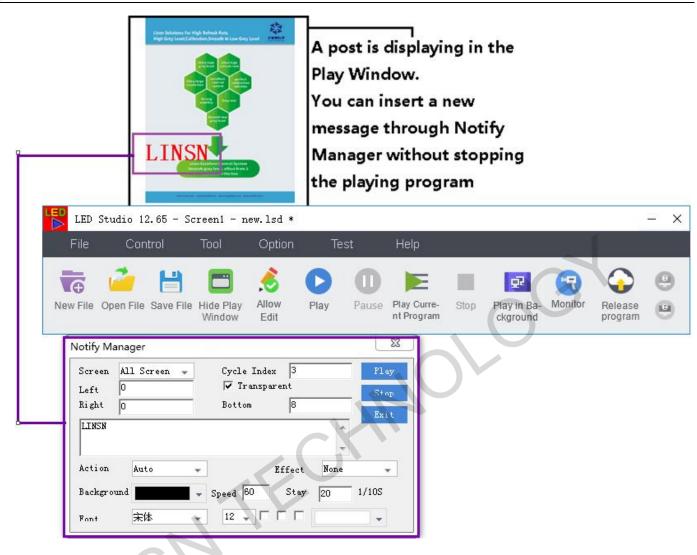
Background: background color for Notify Message

Speed: Notify Message coming in speed. The larger the value, the slower the speed **Stay**: time duration for Notify Message to stay before next **Action** is taken place

Font: font setup for Notify Message

Example of using Notify

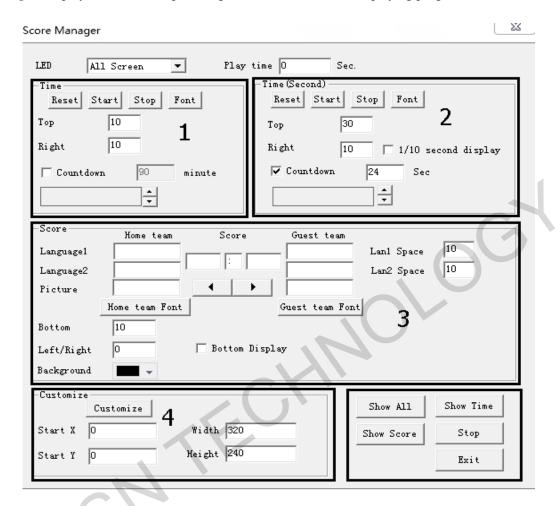






3.2.2.7. Score Manager

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



LED: 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)

Left/Right: set the position of score contents

Background: set the color of the display background

Bottom display: display Team/player pictures below score (check).

Part4 Customize

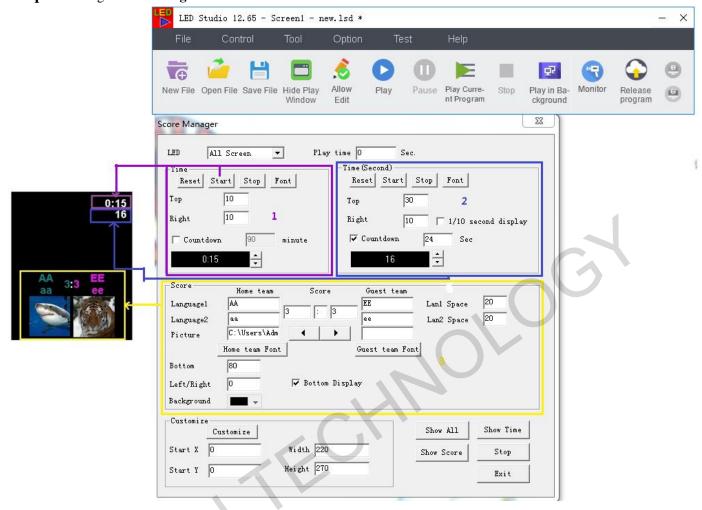
Show All: show both the time and score you set on the play window **Show Time**: only show the time you set on part1&2 to the play window **Show Score**: only show the score you set on part3 to the play window

Stop: stop showing the score message

Exit



Example of using Score Manager



20190717



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 (online)

Manager for LED Screen Sever: to manage remote screen, please refer to page 24-28 for details.

3.2.2.13. Manager for LED Screen Sever (offline)

Manager for LED Screen Sever: to manage remote screen, please refer to page 28-32 for details.

3.2.2.14. Insert Video

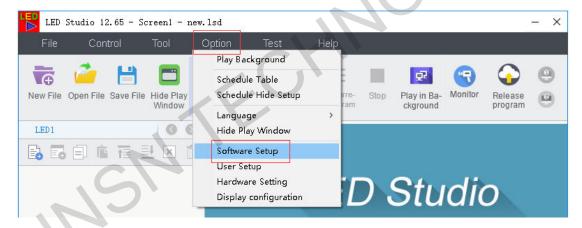
Insert Video: reserved 3.2.2.14. **Split wnd**

Split wnd: split the play window for ultra-long LED screen

Check the following procedure to do the setup for split window

Step1. Set properties for the classical play window

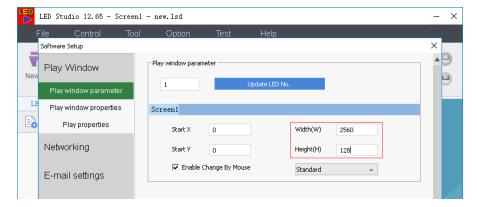
Open LEDStudio>click [Option]> click [Software Setup]



>set the [Width] and [Height] for the window depending on the actual connection

Note: the limitation for a normal 2K graphics card is 8192px in width or height

For example, if the actual resolution of the LED screen is 2560*128 pixels, please set it as follows:



Official website: www.linsn.com

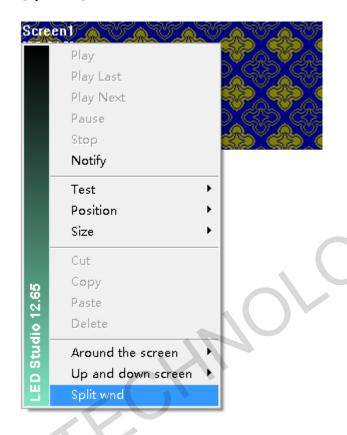
15 / 89 20190717



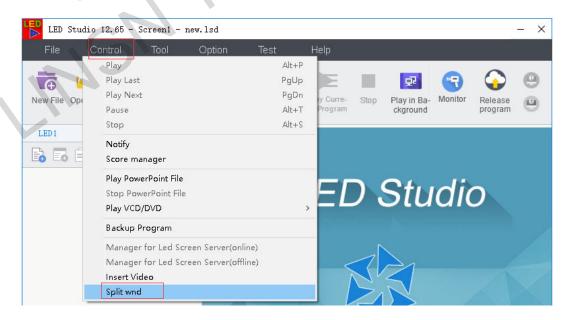
Step2. Set properties for the split window

Follow one of the below options for opening split window:

Right-click on the play window>select [Split wnd]



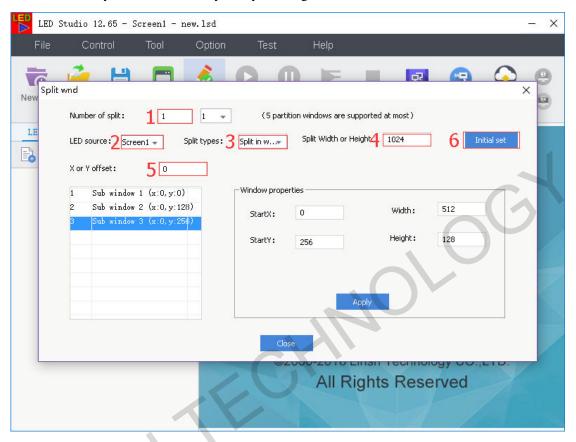
Or go to [Control]>click [split wnd]





Input the section value for [Split width or height], and click [Initial Set](This is the setup for most case. If you have other requirements, please check the description below for other options)

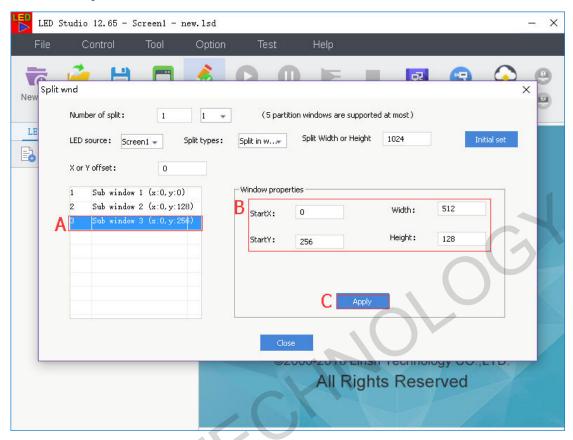
For example, the LED screen is 2560*128, we can split it by 1024 in width, then input 1024 in [Split width or height]. The software will divide the 2560 by 1024 automatically, and you will get three sections:1024*128,1024*128 and 256*128



- 1. Input the number (supports up to 5) of split windows that you need
- 2. Select the input source for each split window, for example Screen 1, Screen 2, Screen 3
- 3. Select split method, for example split in width (for long LED screen), split in height (for high LED screen)
- 4. Step length for width or height, for example, [split in width] is selected, input the with for each section
- 5. Offset for all the splited subwindows
- 6. Click [Initial Set], after the above setup



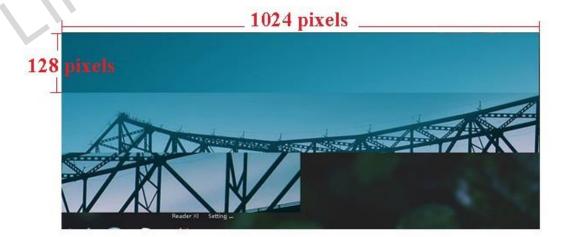
Leave the following properties to default. (This is the setup for most case. If you have other requirements, please check the description below for other options)



- A. Select one of the subwindow needed to be adjusted;
- B. Set X,Y, width and height for each sub window;
- C. Click [Apply] after the setup for each subwindow

After setting up the properties

Split window:



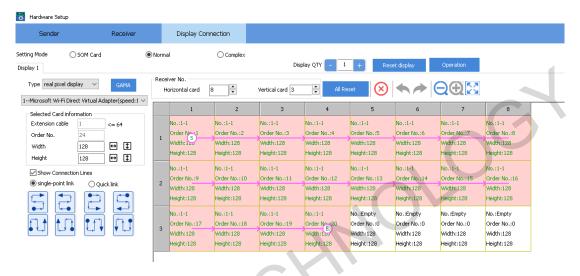


The image that showing on LED screen

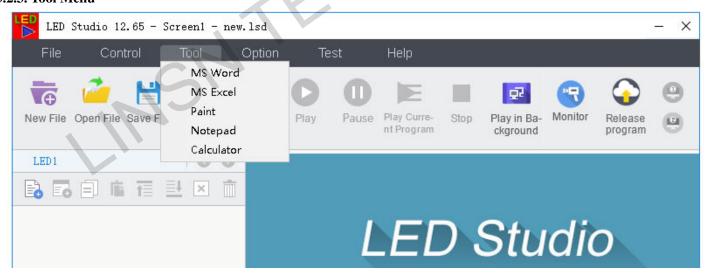


Step3. Display Connection

Please do the display connection with the same layout of split window



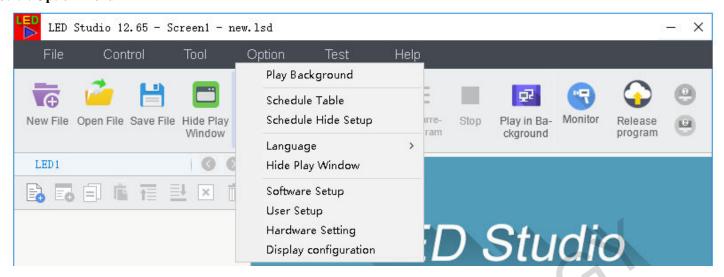
3.2.3. Tool Menu



Shortcuts of Microsoft Word, Excel, Paint, Notepad, Calculator. Click to open quickly.

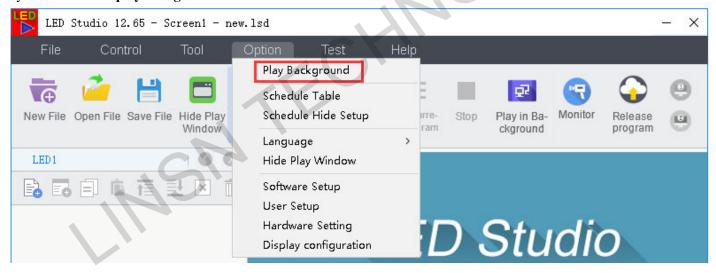


3.2.4. Option Menu



3.2.4.1. Play Background/Foreground

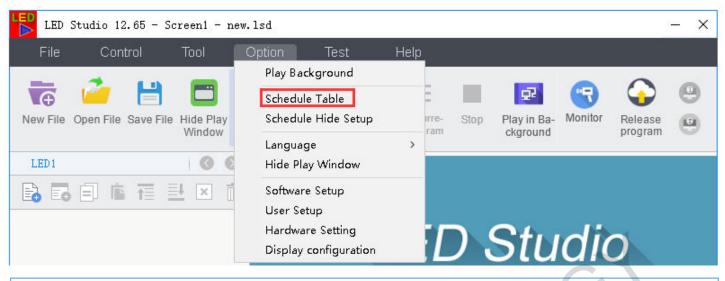
Play Background: Play background/foreground. Only when you set the graphics card and the sending card to **extended mode** do you need to click **play background.**

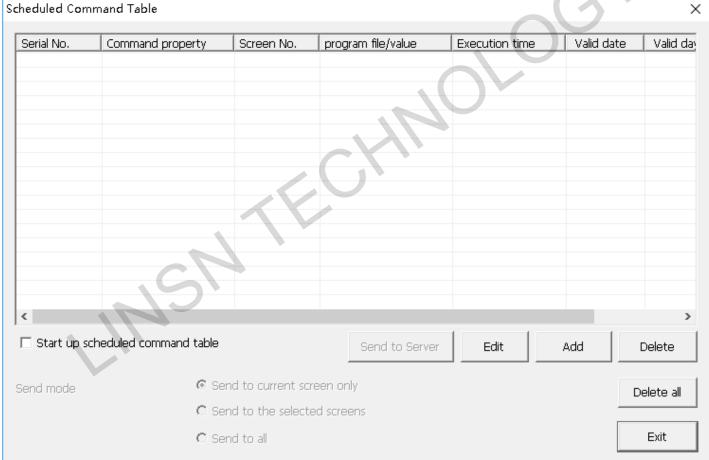


3.2.4.2. Schedule Table

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 certain programs at preset time.







Start up scheduled command table: select to enable Scheduled Command Send to Server: applied in Remote LED Screen Manager Online mode

Note: For more details, please refer to Page24-28

Send to current screen only: send the **Scheduled Command Table** to the current selected LED display **Send to the selected screens**: select the LED display(s) to send the **Scheduled Command Table** to

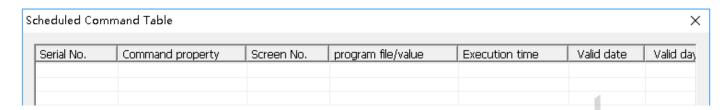


Send to all: send to all LED displays listed in Remote LED Screen Manager Online

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

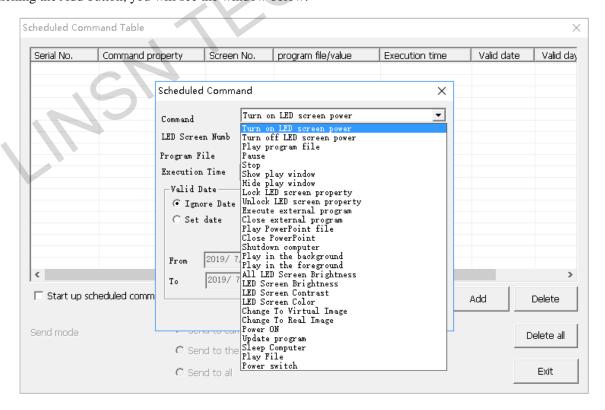
Program file/value: contents of the Scheduled Command

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

End Time

After clicking the Add button, you will see the window below:



Official website: www.linsn.com

22 / 89 20190717



- Turn on/off LED screen power:
- Play program file: .lsd file
- Pause, stop: pause or stop at the execution time

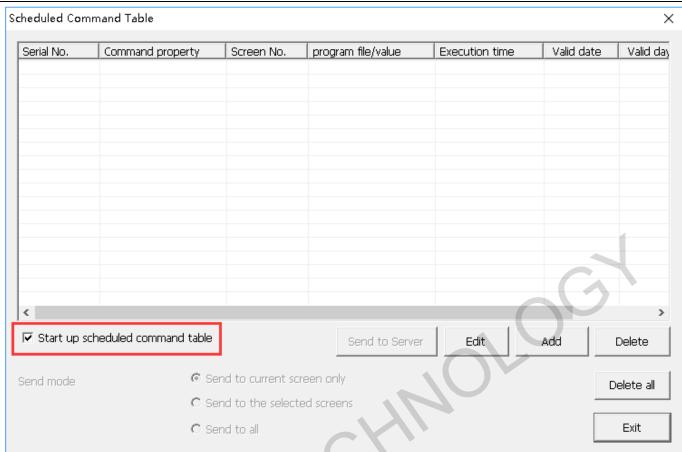


- Show/Hide play window: show or hide the Play Window
- Execute/close external program: run or quit external .exe program played in LEDStudio (the .exe program should be tested and it works in LEDStudio)
- Play/close PowerPoint file: start or close PowerPoint file
- Shutdown computer: turn off the computer
- Play background/foreground: the graphics card and sending card should be set to extend mode when you need to use this function.
- All LED Screen Brightness: change the brightness of the LED screen at certain time
- LED Screen Brightness: change the brightness at a certain time
- LED Screen Contrast: change the contrast at a certain time
- LED Screen Color: change the color at a certain time
- Change to Virtual Image: If your LED screen is a virtual type, you can set a certain time to enable the virtual —pixel mode
- Change to Real Image: If your LED screen is a virtual type, you can set a certain time to enable the real-pixel mode
- Power ON: turn on computer
- Update program: update program from server
- Sleep computer: put the computer in sleep mode
- Play file: choose the file and play

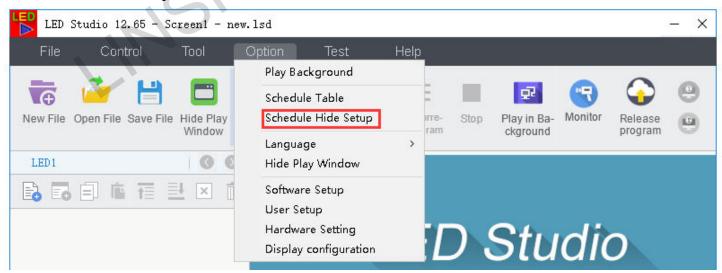
Note: After you set all the commands, please choose the Start up scheduled command table option to enable the function to enable the function

Official website: www.linsn.com 23 / 89 20190717



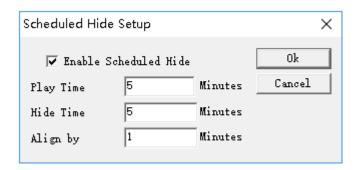


3.2.4.3. Schedule Hide Setup Schedule Hide Setup:



20190717



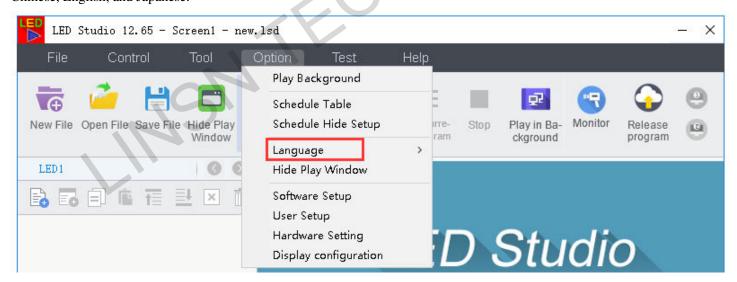


Enable Scheduled Hide: enable/disable Scheduled Hide Play Time: show-up time duration for Play Window Hide Time: hidden time duration for Play Window

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.

3.2.4.4. Language

Change the LEDStudio interface language. LEDStudio supports the following languages: Simplified Chinese, Traditional Chinese, English, and Japanese.



3.2.4.5. Show play window/Hide play window

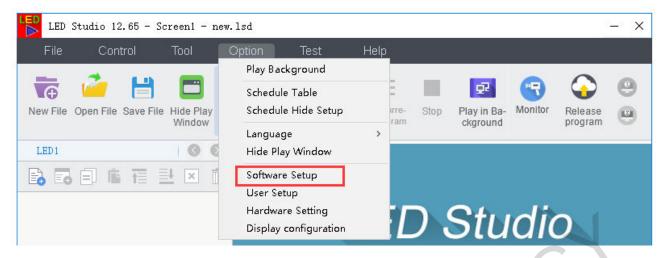
Show play window/Hide play window: Hide the Play Window, LED display will show the part of computer desktop (desktop within the Screen Area)

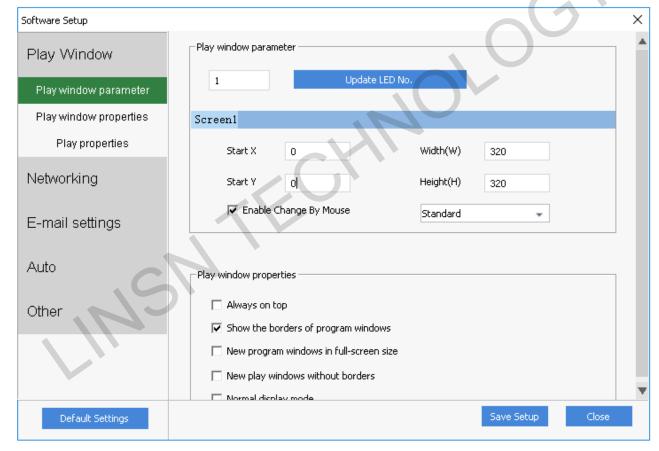
Official website: www.linsn.com

25 / 89 20190717



3.2.4.6. Software Setup





Tips:

If the software malfunctions, you can try clicking **Default Settings** on the above interface. After clicking it, all the parameters set in the software will be back to default values.



3.2.4.6.1. Play Window Part1. Play window parameter:

Play window paran	neter —————			
1	Update	LED No.		
Screen1				
Start X	1189	Width(W)	320	
Start Y	152	Height(H)	240	
☑ Enable (Change By Mouse	Standard Standard		
		Inverted(180) Right(90cw) Left(90ccw)		O

Update LED No: add more play window if needed Start X/ Start Y: the position of play window Width (W)/ Height (H): the size of play window

Enable Change By Mouse: the Size, Position of each Play Window can be adjusted by mouse

Standard/Inverted (180)/Right/Left: direction of display contents



Standard



Inverted (180)



Right (90cw)



Left (90cw)

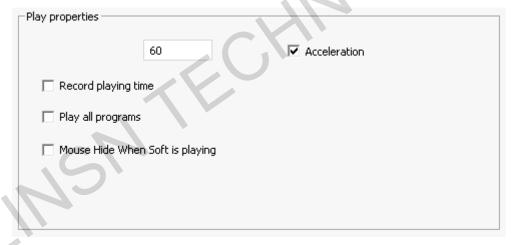


Part2. Play window properties

⊢Pla	y window properties ————————————————————————————————————
	☐ Always on top
	▼ Show the borders of program windows
	New program windows in full-screen size
	New play windows without borders
	☐ Normal display mode

- Always on top: the play window won't be blocked when selected
- Show the borders of program windows: the borders of the program windows will be shown when selected
- New program windows in full-screen size: program window display in full screen by default when selected
- New play windows without borders: the borders of the program windows are invisible by default when selected
- Normal display mode: graphics card mode

Part3. Play properties



- Record playing time
- Play all programs
- Mouse Hide When Soft is playing
- Play Document When Starts Up Automatically
- Play Document When Starts Up Manually



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

3.2.4.6.2.1. Remote Manager (online)/real time remote control

This function allows LEDStudio on client computer to fully control LED screen (LEDStudio on Server Computer).

Note: Client computer is the one used to remote control the server computer; server computer is the one that connects to the LED screen directly.

Remote Manager ((online)		
✓ Local LED sc	reen		
Client	Remote Manager (online)		
Server	Enable Remote Server(online)	Port	6600
	Quit Enable		

Client Enable Remote Server (online): tick it to enable the function on the client computer.

Server Remote Manager (online): tick to enable the function on the server computer, and the two entrances/button for the manager will be enable (see the bellowing picture)

Port: same port as Server Computer preset port

Quit Enable: If unable it, LEDStudio on server computer can't be closed.

Setup

On sever computer (connects with LED screen):

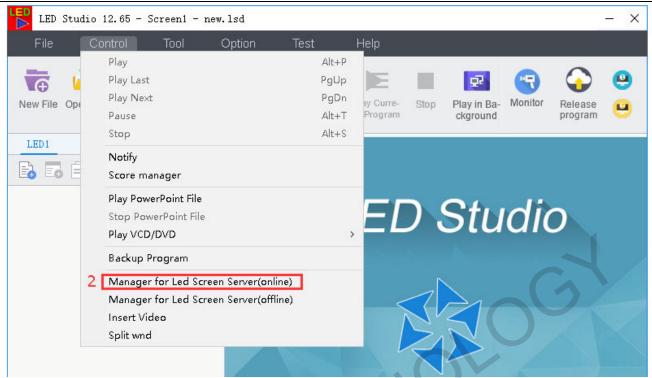
1. Go to Option->Software Setup->Networking->check Server Enable Remote Server (online) option

On client computer:

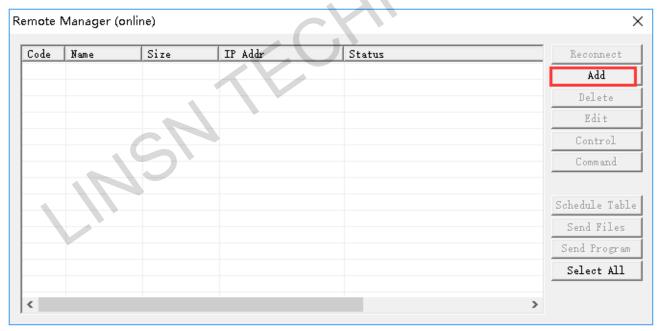
- 1. Go to Option->Software Setup->Networking->check Client Remote Manager (online) option
- 2. Click Remote LED Screen Manager (online) button **OR** Go to **Control->Manager for Led Screen server** (As the following picture), password is: 168





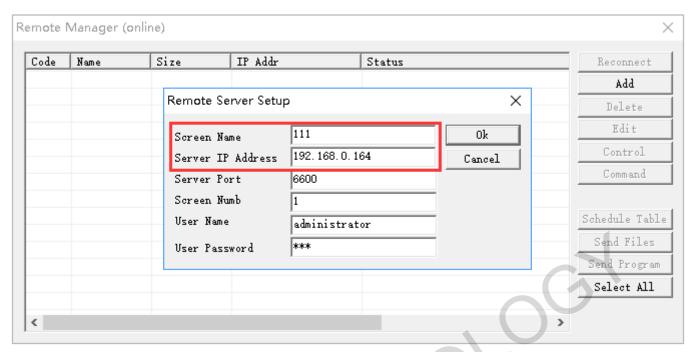


4. After the following manager interface pops up, click **Add** to set up the connection.

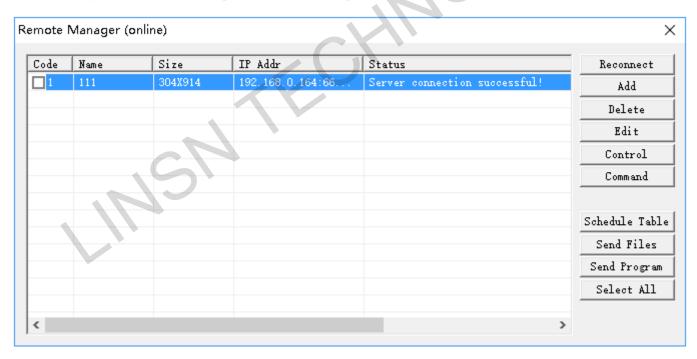


5. Input a name for your LED screen and the IP address of sever computer. Then click ok.





6. After selecting the desired sever computer, the rest of the options will be enabled.



- **Reconnect:** reconnect to the added sever computer.
- Add: add a new sever computer.
- **Delete:** delete a selected sever computer.
- **Edit:** edit the information of the sever computer.
- **Control:** access to the sever computer's desktop to realize remote desktop control.



- **Schedule Table:** set the schedule command table (refer to <u>page15</u>) for the server computer and send it to that computer
- **Send Files:** send the files from client computer to server computer.

Send File		×
Target DIR		Send
Source File		Exit
		Add
		Del
		Delete All
Same file name	⊙ Overwrite ○ Skip	
Send mode	 Send to current screen only 	
	C Send to the selected screens	
	C Send to all	, 0

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

Skip: if Target DIR has a file with the same name of Source File, Source File skips transmitting to Target DIR.

Send mode

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

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

Official website: www.linsn.com 32 / 89 20190717



Send program		×
Source	▼ Browse Send	l
Dest	ProgramO Exi	t
synchronizatio	n for time	
Pause playing	when is sendding	
Send completed	C Do nothing	
	Now playing	
	C Wait aired before playing	
Same file name	Overwrite	
Send mode	Send to current screen only	
	C Send to the selected screens	
	C Send to all	

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**

Send completed Do nothing Now playing

Wait aired before playing

Same file name

Overwrite: if Dest has an .lsd file with the same name of Source, Source .lsd File replaces the Dest .lsd file Skip: if Dest has an .lsd file with the same name of Source, Source .lsd File skips transmitting the .lsd file

Send mode

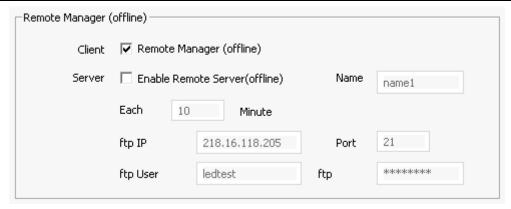
Send current only: send the Source .lsd file to the current selected Server Computer

Send by select: select the Server Computer(s) to send the **Source** .lsd file to

Send to all: send Source .lsd file to all Server Computers listed in Remote LED Screen Manager Online

3.2.4.6.2.2. Remote Manager (offline)/FTP Server





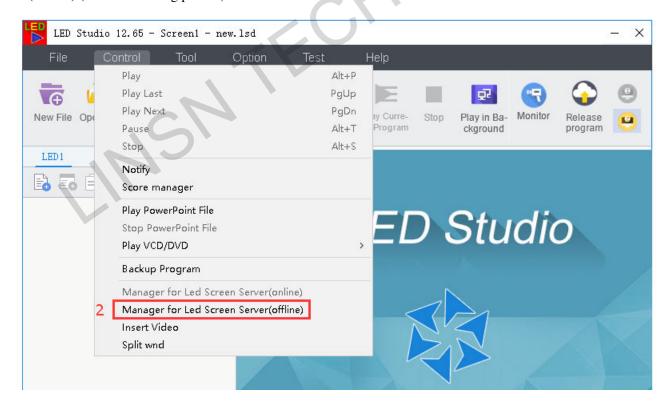
Setup:

On the Server computer:

- 1. Go to Option->Software Setup->Networking-> Check the Server Remote Manager (offline) option
- 2. Input the FTP information: FTP IP, Port, FTP User (name), and FTP password
 Each 10 Minutes means the LEDStudio on Client computer will fetch updates from FTP server every 10 minutes.

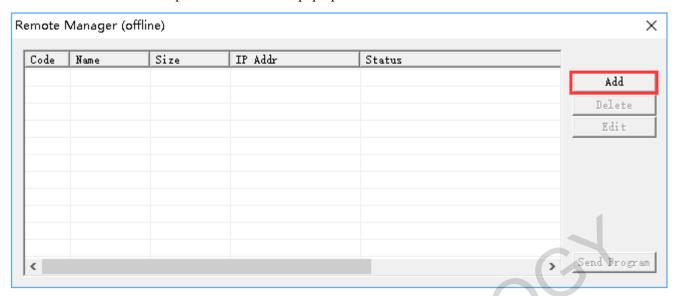
On the Client computer:

- 1. Go to Option->Software Setup->Networking-> Check the Client Remote Manager (offline) option
- 2. Click Remote LED Screen Manager (offline) button **OR** Go to **Control->Manager for Led Screen** server (offline) (As the following picture)

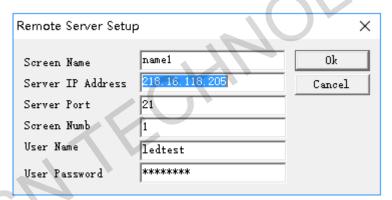




3. Click **Add** to add sever computer's address in the pop-up interface below.

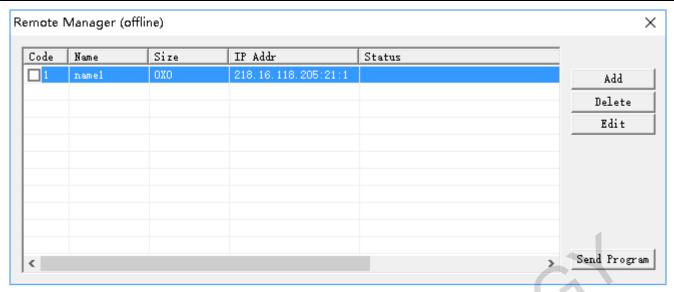


4. Make sure the information is correct and click ok to connect with the server computer.



5. Select the desired server computer, and the rest button will be enabled.





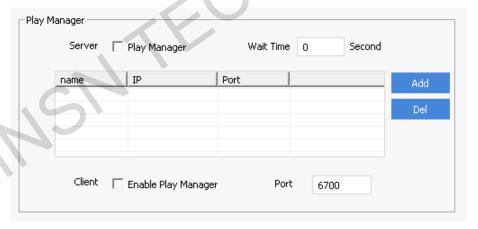
Add: add another FTP server

Delete:delete the selected FTP server

 $\pmb{Edit} : edit \ the \ selected \ FTP \ server$

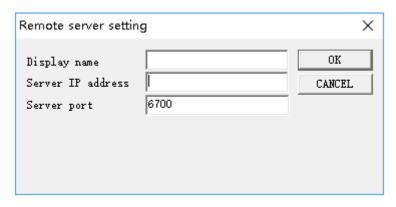
Send Program: refer to page 28

3.2.4.6.2.3. Play Manager



Play Manager: works with Online/real time remote control





3.2.4.6.2.4. TCP/IP Protocol



Allow receive: For sending command to control the software

3.2.4.6.3. E-mail settings



Messages saved to the local (info.log):



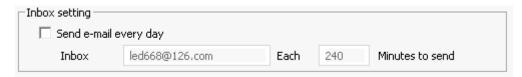
SMTP server: the SMTP server address of outbox

Port: the SMTP server port of outbox

Outer address: the any valid email address for outbox

Password: the password of outbox email

Note: Because of server problem, this function can be used only in China



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 240 Minutes to send



Email setting when software failure						
Send email		Inbox	led668@126.com			
Fault display						
Recv card Volt	Min	0.0	Max	0.0	☐ Temperature	0.0
☐ Voltage 1	Min	0.0	Max	0.0	☐ Humidity	0.0
☐ Voltage 2	Min	0.0	Max	0.0	☐ Fan	0
☐ Smoke	Cable		☐ Door		Card no ansv	wer

Pop-up message: choose pop-up message to report fault alert

Send email: choose sending email to report fault alert **Inbox**: enter an email address for receiving fault alert

Recv card Volt (Min/Max): choose to report voltage related fault alert

Min/Max: the software will send you a fault alert when the actual voltage exceeds the range you set

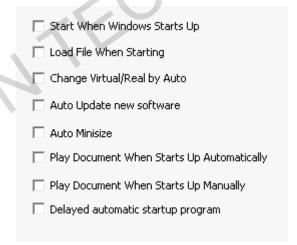
Voltage 1(Min/Max): the software will send you a fault alert when the actual voltage exceeds the range you set

Voltage 2(Min/Max): the software will send you a fault alert when the actual voltage exceeds the range you set

Temperature: the software will send you a fault alert if the actual temperature value is greater than the one you set

Humidity: the software will send you a fault alert when if the actual humidity value is larger than the one you set

3.2.4.6.4. Auto

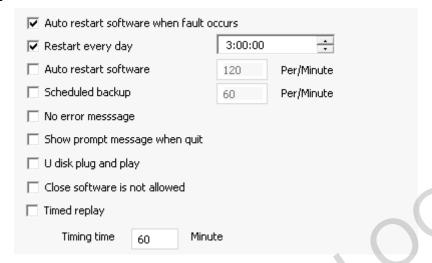


- Start When Windows Starts Up: open LEDStudio when Windows starts up
- Load File When Starting: Load .lsd file automatically when open LEDStudio
- Change Virtual/Real by Auto: for virtual **LED display**, playing letters in real-pixel mode for better visual effect, and playing image/video in virtual pixel mode; automatically switch.
- Auto Update new software: automatically update LEDStudio software
- Auto Minisize: Minimize LEDStudio automatically
- Play Document When Starts Up Automatically
- Play Document When Starts Up Manually



• Delayed automatic startup program

3.2.4.6.5. 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)
- Schedule backup: automatically back up files of .lsd file every preset time
- No error messages: 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 disk as priority
- Close software is not allowed: If enabled, the software can't be closed
- Enable the hardware-setting interface zoom function; When the desktop height is less than:

 Enable zooming the hardware-setting interface when the height of desktop is less than the certain value you set

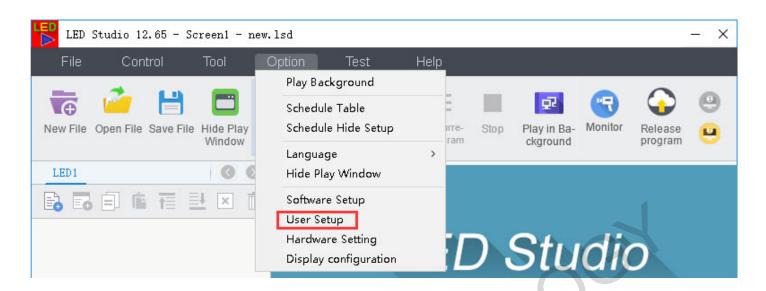
Official website: www.linsn.com

39/89

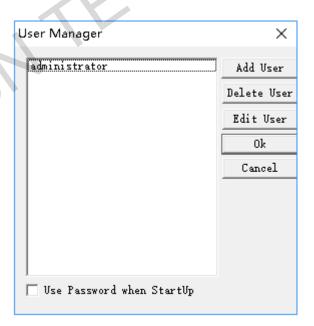
20190717



3.2.4.7. User Setup







Add User: to add a new user ID and password

Official website: www.linsn.com
40 / 89
20190717

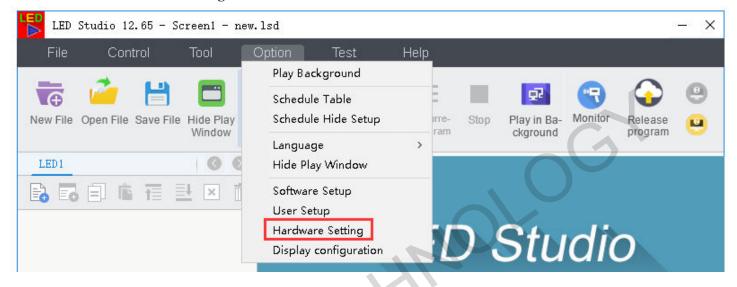


Delete User: to delete user information

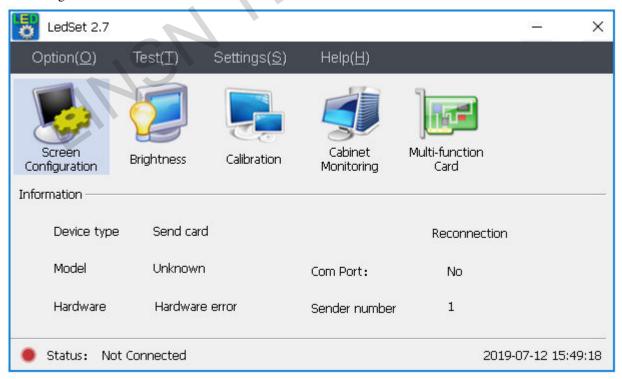
Edit User: to change password OK: to confirm information Cancel: to cancel operation

Use Password when Start Up: to require entering password when open LEDStudio

3.2.4.8. Hardware Setting



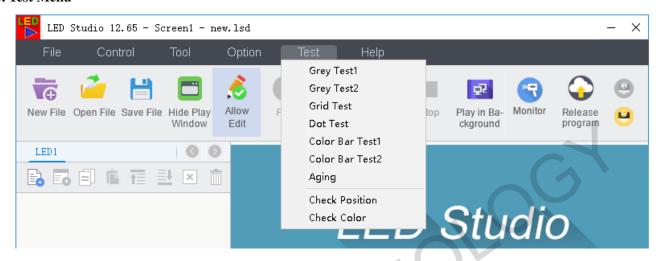
Hardware Setting: to send **.CON** file (Display Connection settings file) and **.RCG** file (display driver for receiving card) to receiving cards



Official website: www.linsn.com



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

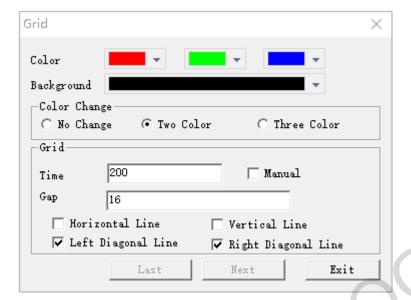
Grid Test: this can test the correctness of the image on screen. (Select three colors for testing and one static color as

Official website: www.linsn.com

20190717



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

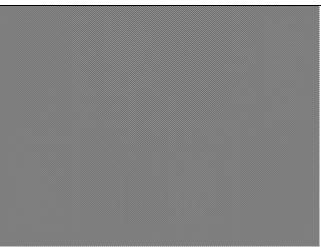
Time: in millisecond; the running speed of testing grid **Gap**: the pixel numbers between two testing lines

Horizontal: testing line runs horizontally Vertical: testing line runs vertically

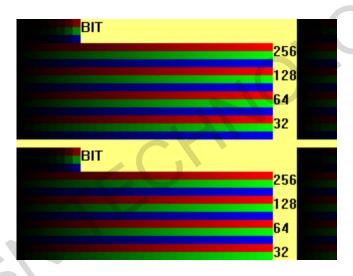
Left Diagonal: testing line runs in bias way **Right Diagonal**: testing line runs in bias way

3.2.5.4. Dot Test

Dot Test: check for faulty pixels



3.2.5.5. Color Bar Test 1



3.2.5.6. Color Bar Test 2

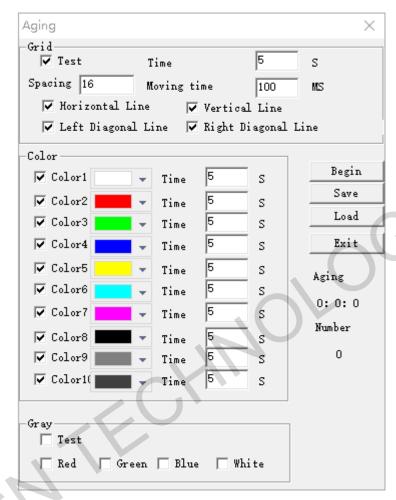
Color Bar Test2: Choose color for color bar test





3.2.5.7. Aging

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



3.2.5.8. Check Position

Check Position: get coordination of Mouse Pointer

Coordinates [805,426]

3.2.5.9. Check Color

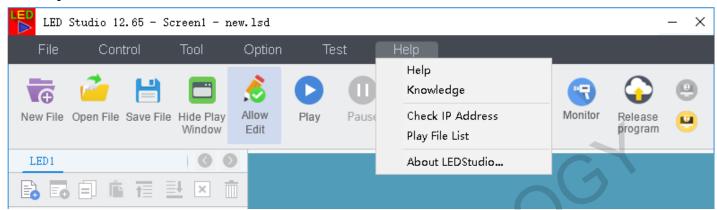
Official website: www.linsn.com
45 / 89
20190717



Check Color: get RGB value

RGB(255,255,255)

3.2.6. Help Menu



3.2.6.1. Help

Help: activate the LEDStudio manual

3.2.6.2. Knowledge

 $\label{lem:knowledge:some tips for LEDS tudio} Knowledge: some tips for LEDS tudio$

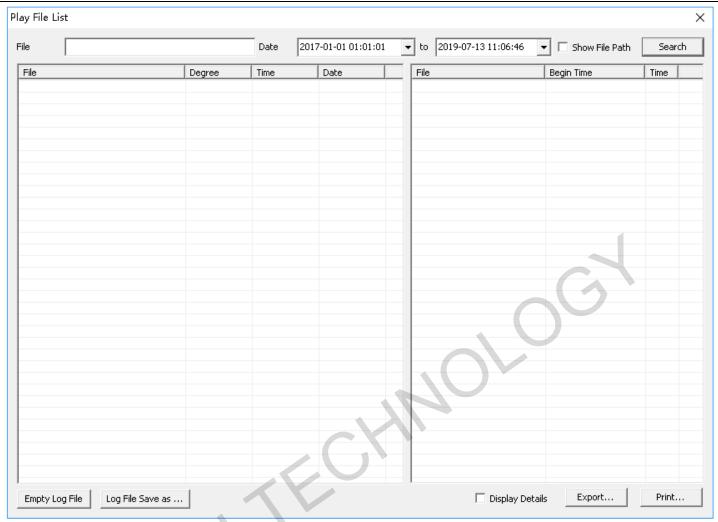
3.2.6.3. Check IP Address

3.2.6.4. Play File List

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

Official website: www.linsn.com
46 / 89
20190717





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**)

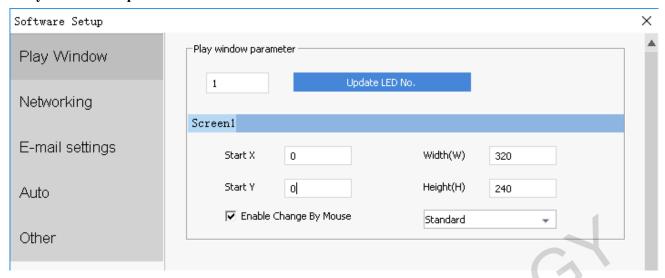
Empty Log File: Delete log file. Log File save as: Save log file.

3.3. How to make a .lsd file

Official website: www.linsn.com
47/89
20190717



3.3.1. Play Window Setup



1) Go to **Option->Software setup->**Set the **Play Window** the same size as that of **LED Screen**. **Start X** and **Start Y** is (0, 0); Width & Height

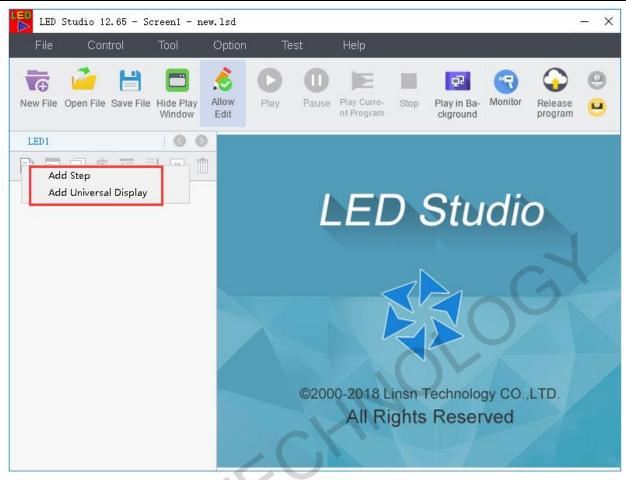
3.3.2. Open a New Page of Program 3.3.2.1. Add Step, Add Universal Display



Click Allow Edit

icon, then New Page of Program icon





Add Step: Loop all the videos and pictures in the program

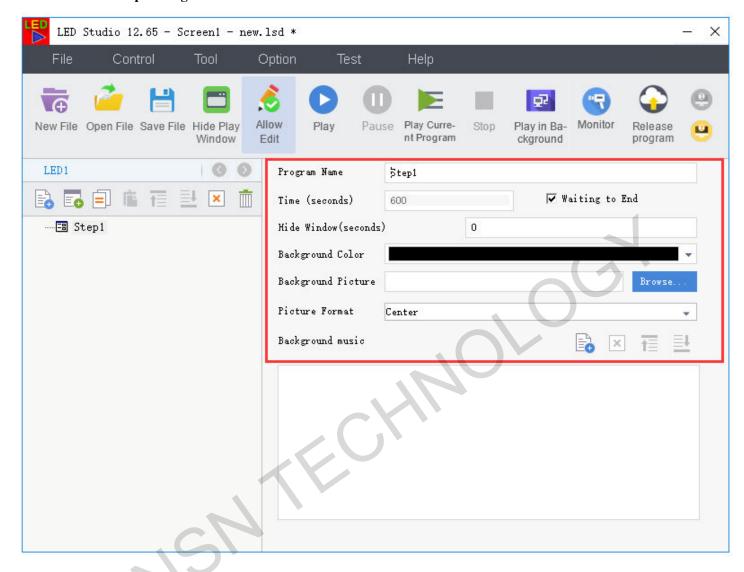
Add Universal Display: this kind of Step have loop play independently. **Universal Display** is always at an upper layer of **Add Step**. Usually for Company Logo, etc.

Note: each .lsd file can only have one Universal Display

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, and 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

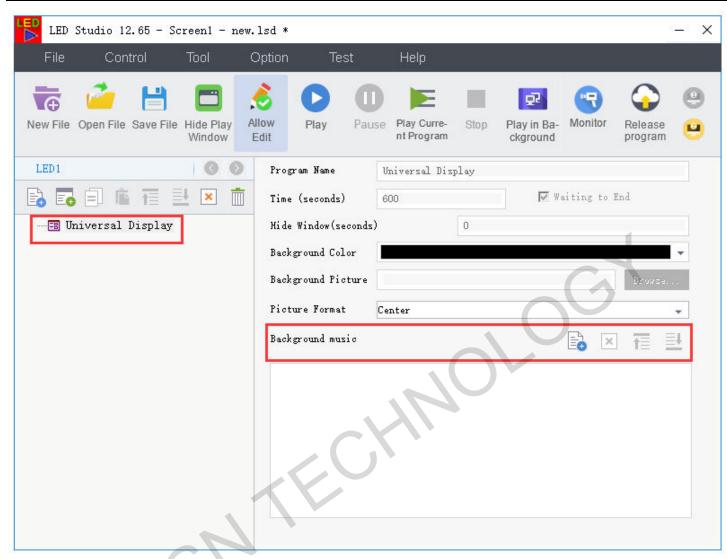
Background: background music, loop play.

3.3.2.3. Universal 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)

Official website: www.linsn.com 50/89 20190717





To delete a program page, use the delete button 🔀 .

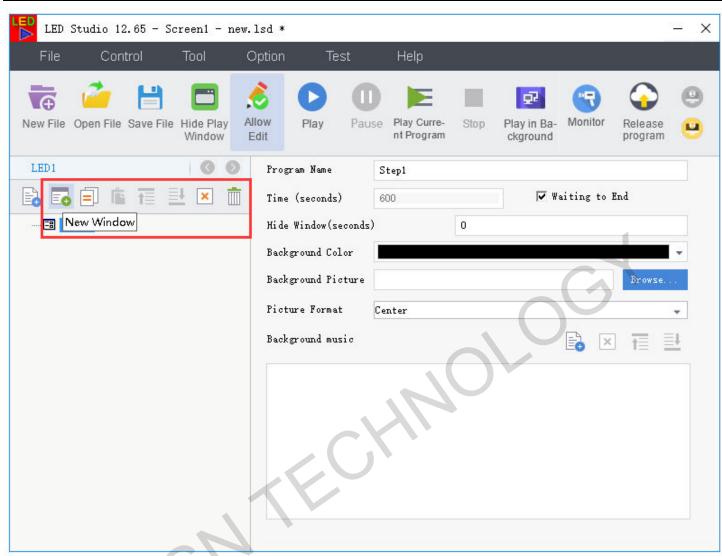
3.3.3. Add New Window

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

Official website: www.linsn.com

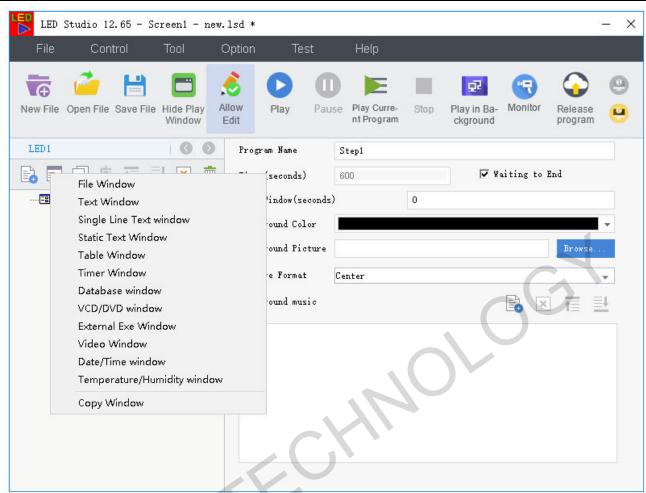
20190717





Click: New Window icon

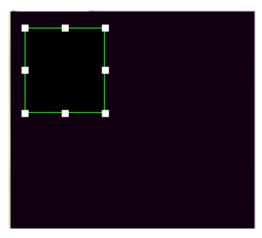




Important Notes:



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



Inverted (180)









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.

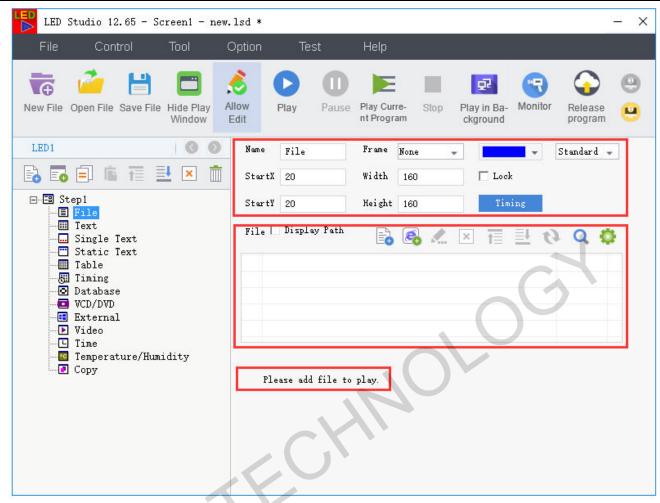
Based on the PC time: By 30 Minute 30 Sec means every 30 minutes of computer clock, Time Window appears for 30 seconds. **Time Window** is hidden besides that every 30 seconds.

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.



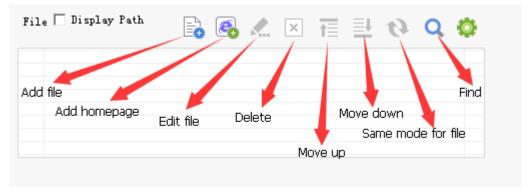


3.3.3.1.1. File(s) Showing Area Settings

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

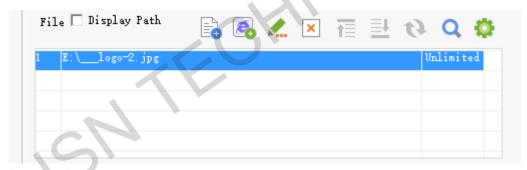
Move up/down: change the order of the loaded files

Find: find file(s) in the list

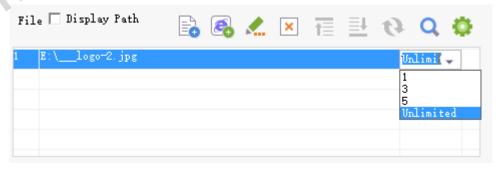
Tips:

You can left-click the video or picture, and drag it to the blank area to insert file directly as the pictures shown below





Unlimited: After you insert pictures or videos, you will see **Unlimited** on the right column. It is for user to set play time, especially appling in advertising.



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 effect 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

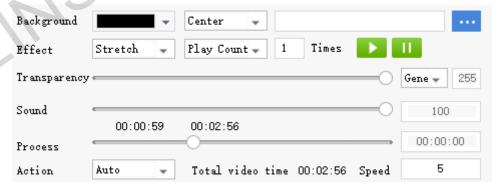
Text: add text

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

Stay: time duration for file to stay **Clear**: how the file is cleared out

Clr speed: clear out speed. The larger the value, the slower the 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: Stretch/ Center/Zoom effect



: test play

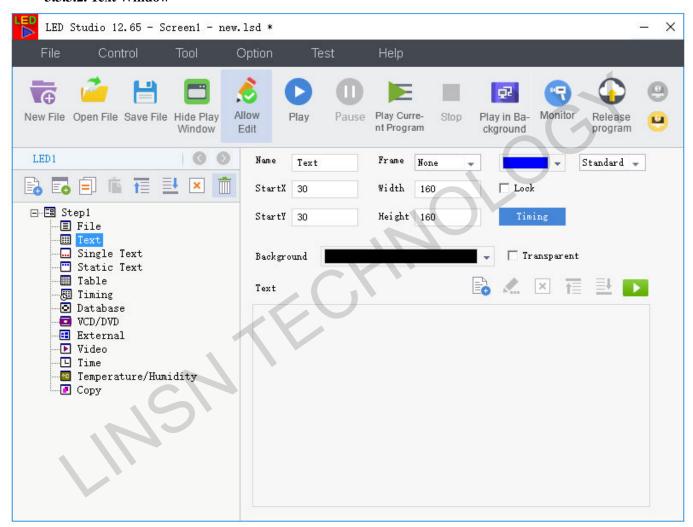
Sound: adjustment for the sound of the video, ranging from 0 to 100.

Process: show current playing time of video

Action: how video come in

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

3.3.3.2. Text Window

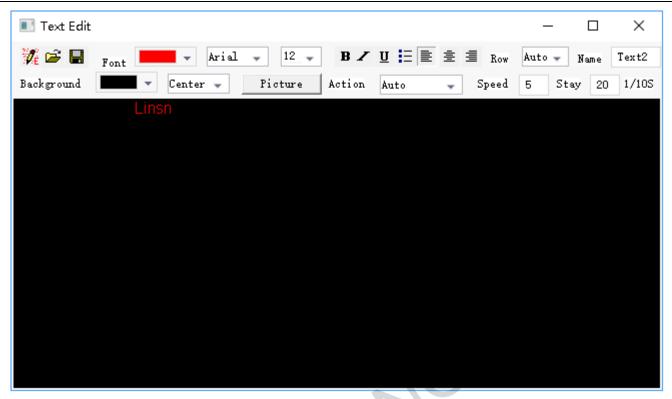


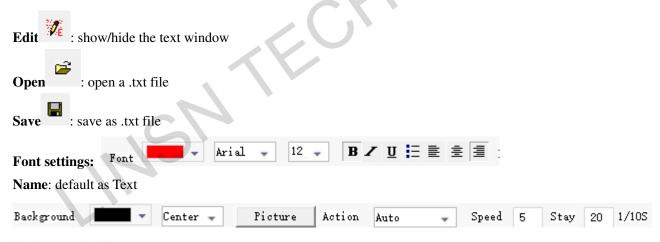
Transparent: set the Showing Area background color to transparent











Background color

Picture: 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

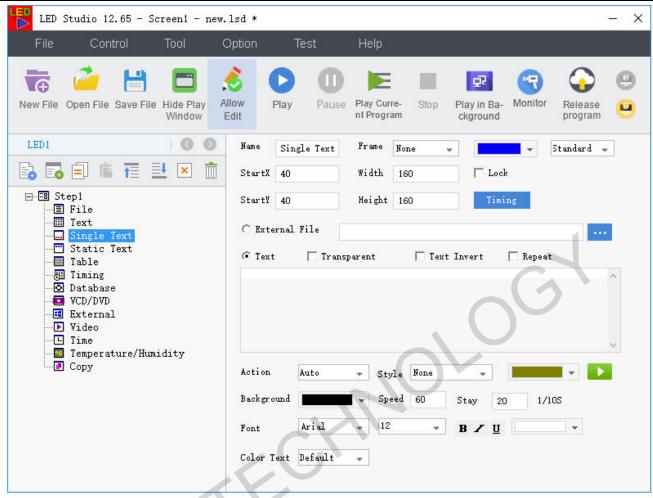
Stay: time duration for background picture to stay

3.3.3. Single Line Text Window

Single line text window: to play single line text window

Official website: www.linsn.com 59 / 89 20190717





Transparent: only work when **Showing Area** background color is Black. Set the black color to transparent 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.



Background: background color for the text

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

Stay: time duration for text to stay

Font: Font settings for text

Text invert: abc ---- cba

Repeat: abc---abcabcabcabc

Color Text: Set the text content in different color as the picture below, there are two modes: 3 colors and 6 colors.

Official website: www.linsn.com

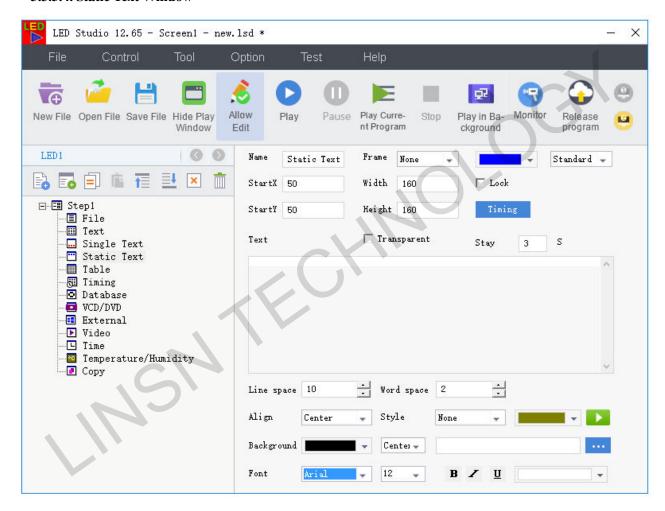
60 / 89 20190717



Color Text	Color tex	▼
	Default	T
	Color text(3 colors)	
	Color text(6 colors)	

linsntechnology

3.3.3.4. Static Text Window



Transparent: only work when Showing Area background color is Black. Set the black color to transparent 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





3.3.3.5. Table Window

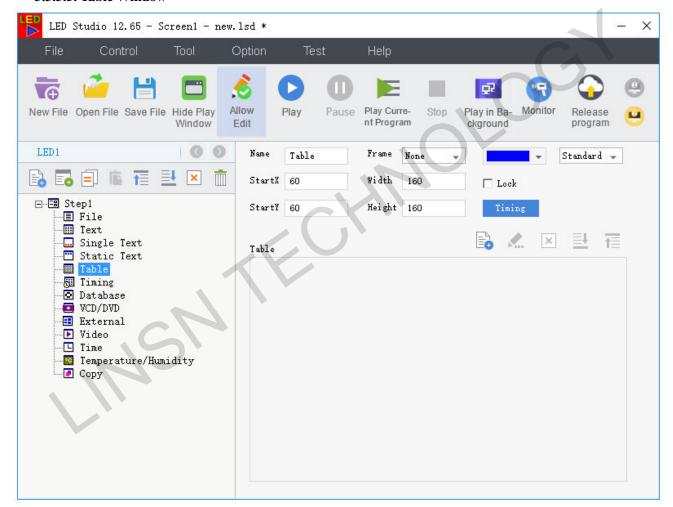


Table Window: Used for editing the play list data.



Official website: www.linsn.com

62 / 89 20190717



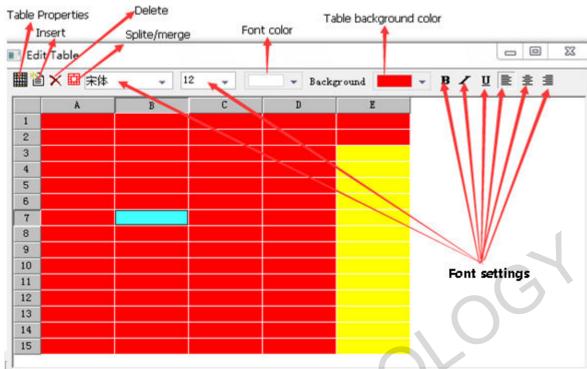
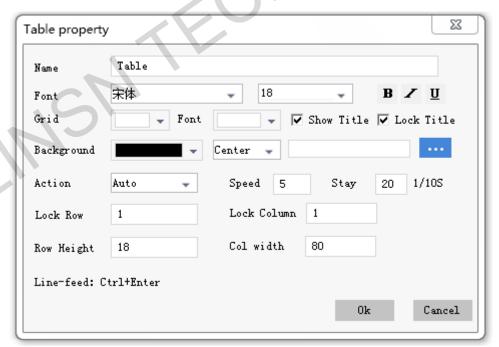


Table Properties:



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

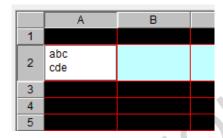
Speed: table coming in speed. The larger the values, the slower the speed

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

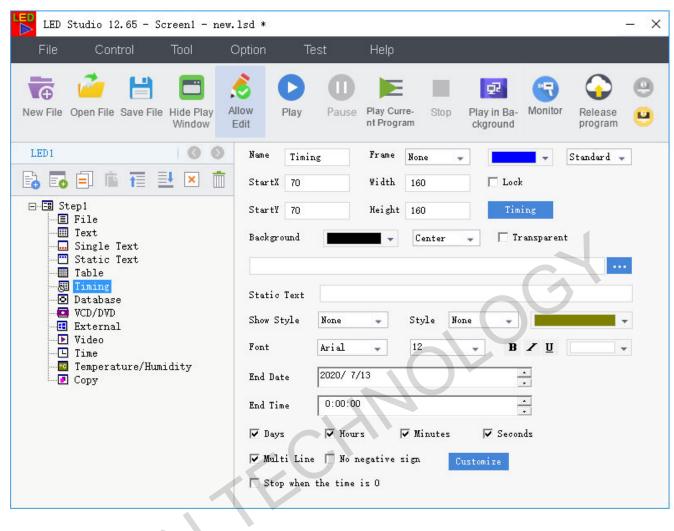


3.3.3.6. Timer Window

Timer window: Used for countdown

Official website: www.linsn.com 64/89 20190717





Background Center - Transparent

Background: 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. Set the black color to transparent and show **Step background color** instead.



Static Text: text input

Style: add effects to text and color for effect



Font	Traditiona -	12	~	ВИ	▼

Font settings for Text.

End Date	2018/ 9/29		•
End Time	0:00:00		
✓ Days	▼ Hours	✓ Minutes	✓ Seconds
✓ Multi Line	☐ No negative	sign	Customize
Stop when	the time is O		

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.

Stop when the time is 0: stop when Timer finish countdown

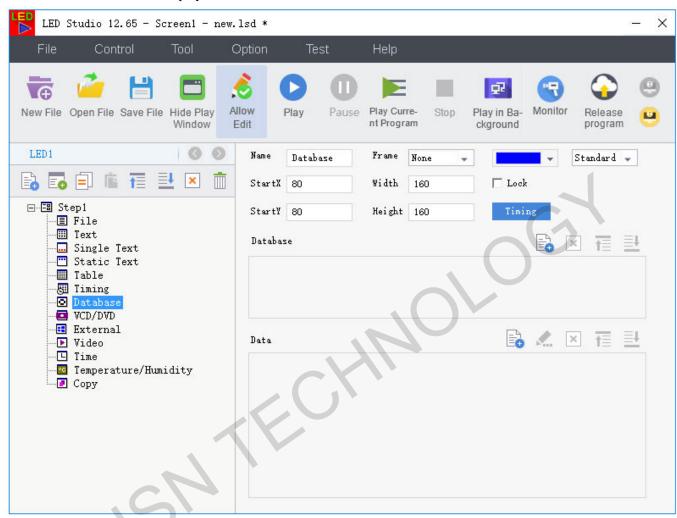
 $\label{customize:customize:customize} \textbf{Customize:} \ \textbf{customize:} \ \textbf{the time format for countdown}$

20190717



3.3.3.7. Database Window

Database window: it is used to play ACCESS database and ODBC driver data base.







Official website: www.linsn.com 67 / 89 20190717



Database Settings

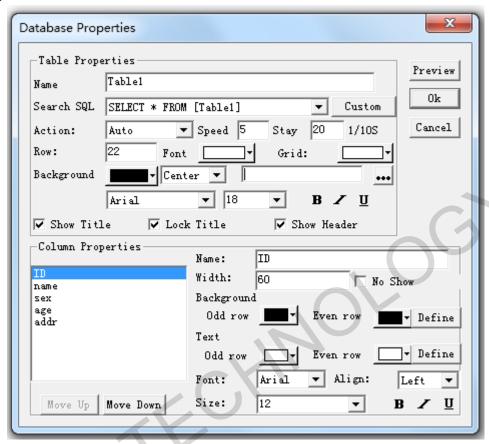
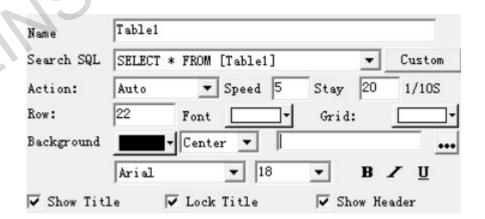


Table Properties



Find SQL: select the database that you need

Scripti-: Scripting



Action: effects for how the table comes in Showing Area

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

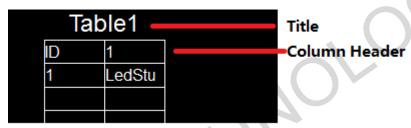
Arial

Font settings for Table 1:

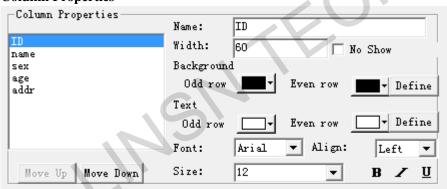
Show title: hide/show Table title

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

Show header: show/hide the Column header

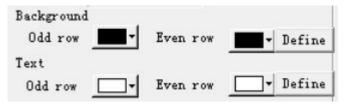


Column Properties



Name: column name

Width: column width in pixels
No Show: hide the selected column



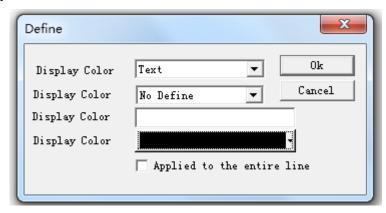
Background odd: background color of column header

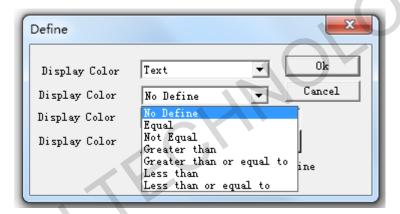
Official website: www.linsn.com 69/89 20190717



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:



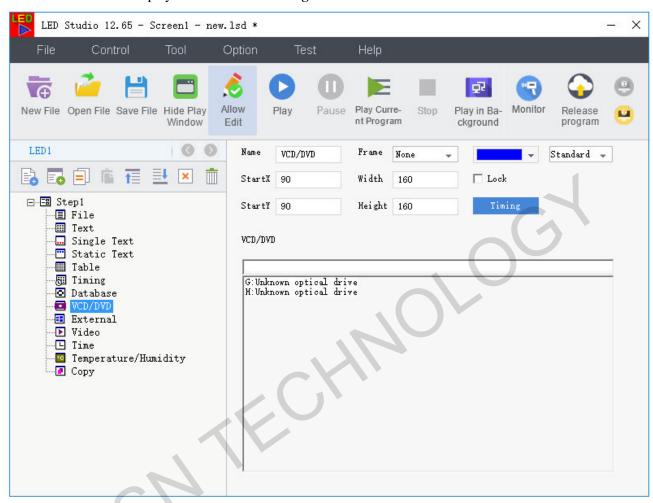
Official website: www.linsn.com

20190717



3.3.3.8. VCD/DVD Window

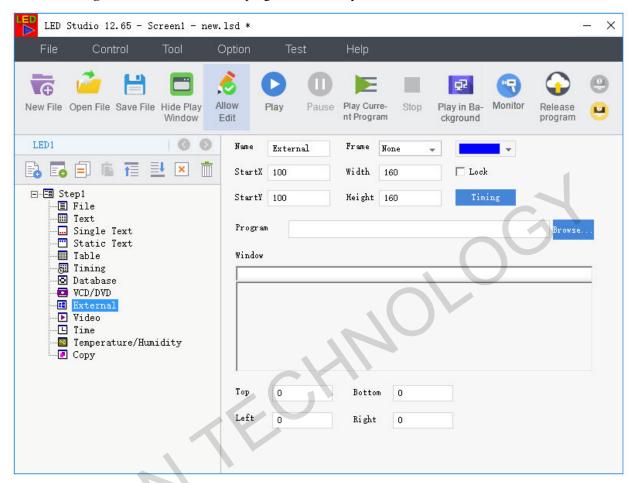
DVD/VCD window: play DVD/VCD in Showing Area





3.3.3.9. External Exe Window

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



Browse: Browse to select an .exe program

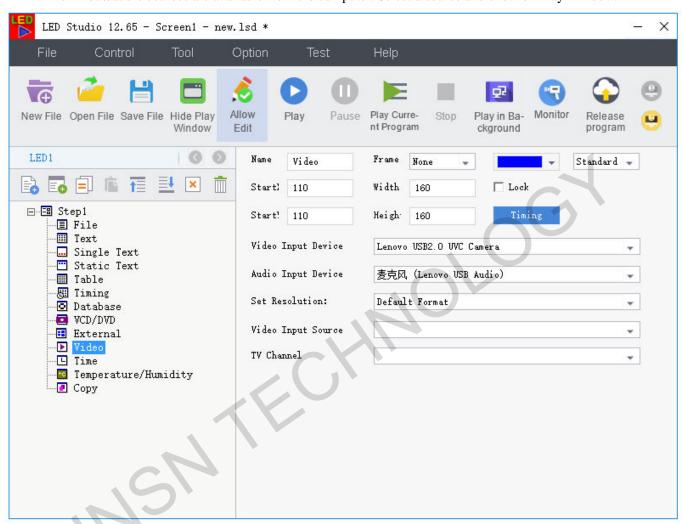
Window Name: Select an .exe listed to run in Play Window

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



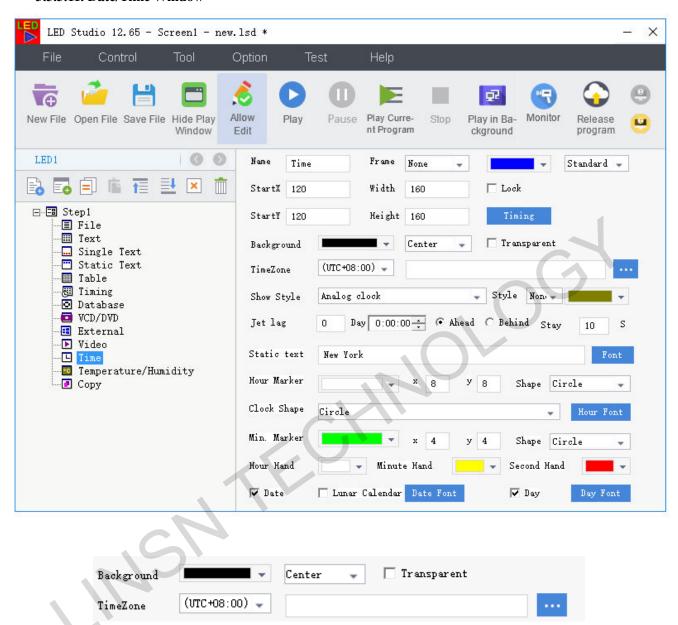
3.3.3.10. Video Window

Video Window: Read Video/audio source from capture card and show on Play Window. LEDStudio will detect which video/audio sources are available from the computer. Select a source and show on Play Window.





3.3.3.11. Date/Time Window



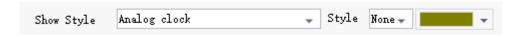
Background color for Time

Center/zoom/stretch/tile for background picture

TimeZone for time reference standard

...: background picture for Timer

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



Official website: www.linsn.com

74 / 89 20190717

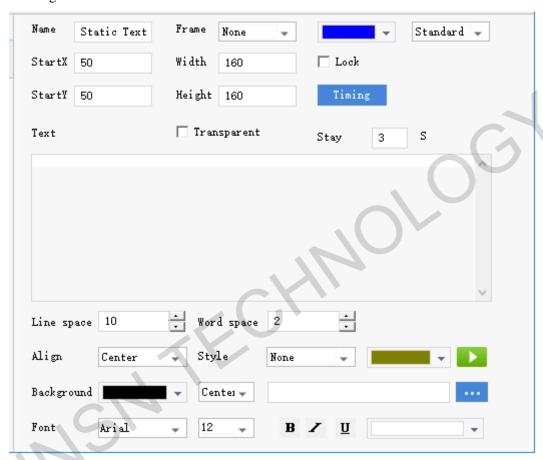


Style: Time style

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

Static text	New York	Font	

Static text: text show together with Time



Line space: to adjust the space between two lines **Word space:** to adjust the space between two words

Align: left, right, center, left & right **Style:** simple effect for the text

Background: to set color for the background

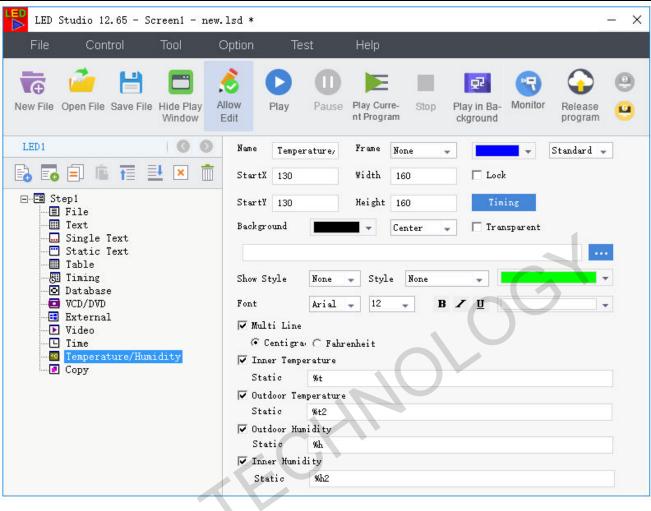
3.3.3.12. Temperature/Humidity Window

This is used to display temperature and humidity on LED screen.

Official website: www.linsn.com

75 / 89 20190717



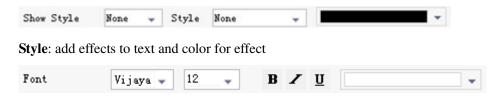


Background Background color: background color of Temperature/Humidity

Center/zoom/stretch/tile for background picture

...: background picture for Temperature/Humidity

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



Font settings for Text.

Official website: www.linsn.com 76 / 89



Multi-line: show between multiple lines and single line

✓ Multi Line	
Centigrade	C Fahrenheit

Show temperature in different unit



Add text before/after Temperature/Humidity Value

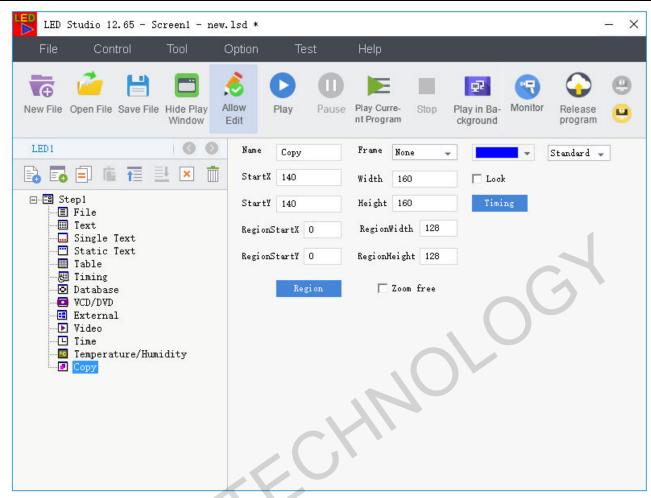
3.3.3.13. Copy Window

Start X, Start Y: 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.

Official website: www.linsn.com 77 / 89 20190717





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

Tips: After you click play button, the play will be changed into an update button ②.

And you can edit the program while the videos/pictures are playing.

: Play current program

: Pause



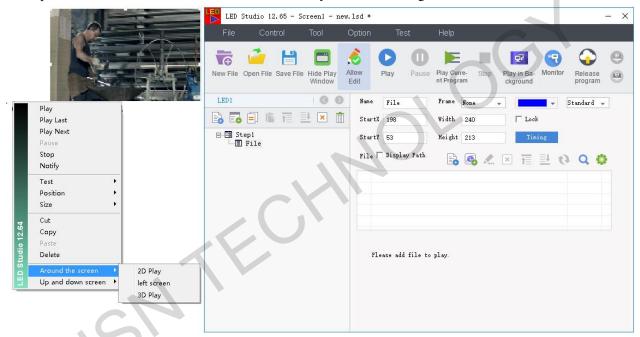
: Stop

: To play .lsd file a saved before.

3.4. 3D Display

Load and open the 3D video source 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.



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



Official website: www.linsn.com 79 / 89 20190717

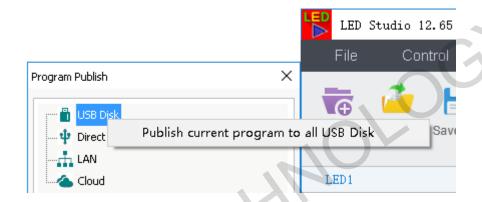


3.5. Release program for L series

3.5.1. Sending Program via USB Flash Drive

Step1. Connect USB flash drive to the PC installed with LEDStudio

Step2. Make a program (refer to 3.3.3.1.), right-click on [USB disk] USB Disk and click [Publish current program to all USB Disk]. The program will be copied to the USB flash drive automatically.



Step3. Connect USB flash drive saved with content to L1, wait until the progress finishes, and L1 will play program automatically on the LED screen

3.5.2. Releasing Program over Network

3.5.2.1. Releasing Program with LAN cable

3.5.2.1.1. Obtain IP address automatically

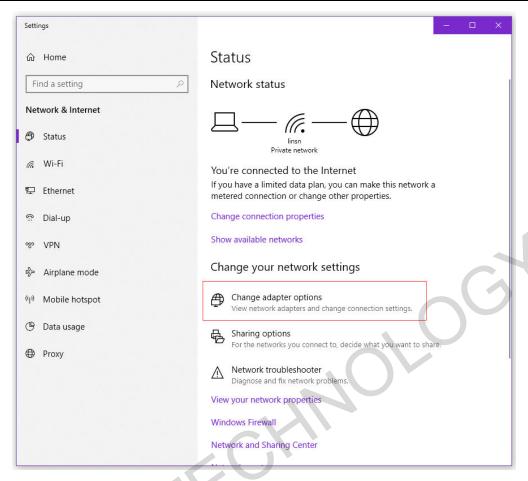
Step1. Connect a LAN cable between PC and the device (L series), power on the device

Step2. Enter [Networking & Internet Settings] on your PC>click [Change adapter options]

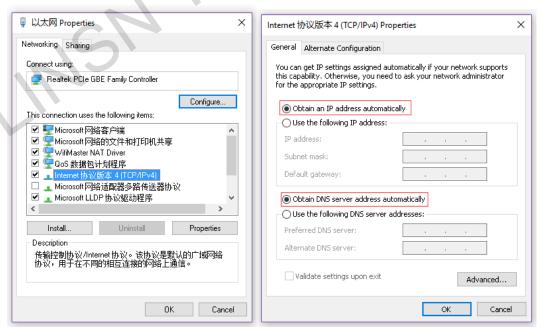
Official website: www.linsn.com

80 / 89 20190717





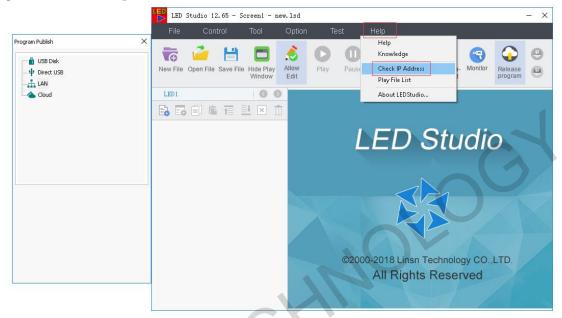
>right-click on [Ethernet] icon and choose [Properties] > double-click [IPv4 option] > check [Obtain an IP address automatically], [Obtain DNS server address automatically]



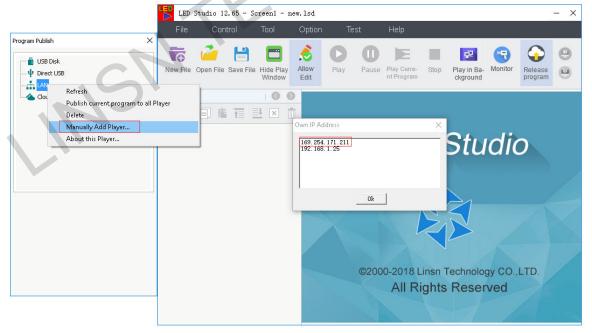


Step3. Open LEDStudio>click [**Release program**] >wait few secs (within 20 secs if this is the first time), the device will show automatically, if not, please enter the IP address manually:

If there is no showing under [LAN] option on the left interface, please add IP address manually: click [Help]> click [Check IP Address]



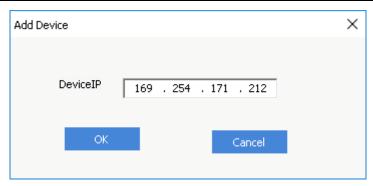
> right-click on [LAN] > choose [Manually Add Player...]



> Input IP address depending on the one you have checked, for example, the IP is 169.254.171.**211**, so the one you should input is 169.254.171.**212**(the last digit should plus one compared to the one you checked)

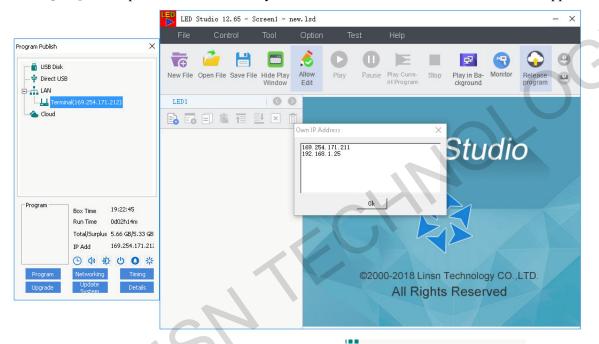
Official website: www.linsn.com 82 / 89 20190717





>click [OK] after input the IP address, and you will see the

Terminal(169.254.171.212) appears



Step4. Make a program in the LEDStudio> right-click on

choose [Publish current

program to the selected player]

And wait until the progress finishes, and L1 will play program automatically to the LED screen

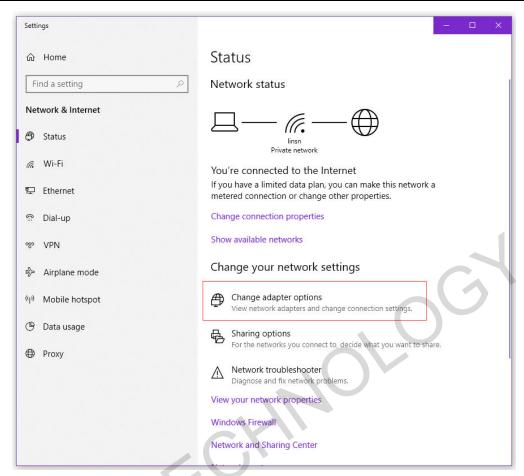
3.5.2.1.2. Set a specific IP address

Step1. Connect a LAN cable between PC and the device, power on the device

Step2. Set an IP address: enter [Networking & Internet Settings] on your PC>click [Change adapter options]

.<mark>Щ.</mark> Terminal(169.254.171.212)

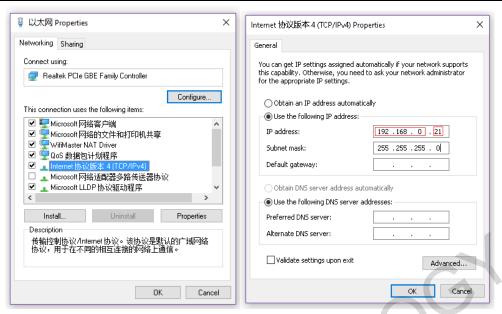




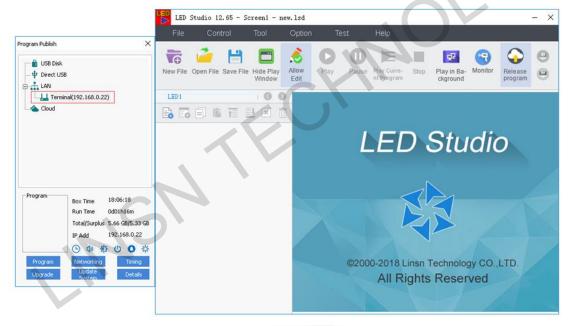
>right-click on [**Ethernet**] icon and choose [**Properties**] > double-click [**IPv4 option**]>set an IP address and Subnet mask (255.255.255.0)

Please set an IP address with the same Network segment (192.168.0) and the last digit to a number within 255(except 8, because the default IP address for L series is 192.168.0.8.), for example 192.168.0.1 or 192.168.0.2 and so on.





Step3. Open LEDStudio > click [Release program] > $\stackrel{\square}{=}$ will shows on the left (within 20secs if this is the first time)



If it is showing offline, please right-click on [LAN] and choose [Refresh]

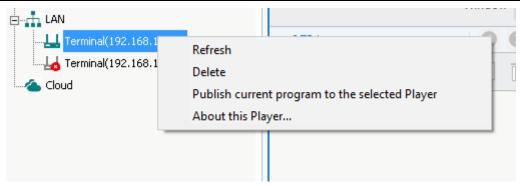
Or adding IP address manually: right-click on [LAN] >choose [Manually Add Player...]> the IP address is 192.168.0.X+1 (where X is set by you on Step2). For example, it is set to 192.168.0.21 for the PC in step2, so input 192.168.0.22 for the device

Step4. Make a program (refer to 3.3.3.1.)>choose the corresponding device in **[LAN]**, right-click and choose **[Publish current program to the selected Player]**

Official website: www.linsn.com

20190717





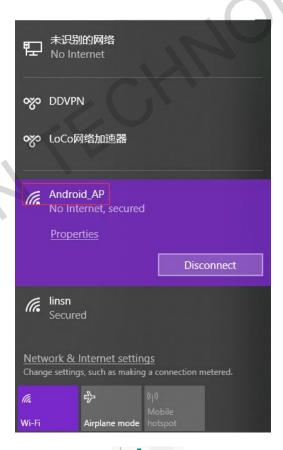
Wait until the progress finishes, and L1 will play program automatically to the LED screen

3.5.2.2. Releasing Program over WIFI hotspot from L series

3.5.2.2.1. Setting up via PC

Step1. Power on the device, the green light for CLOUD will begin flashing which means Hotspot from the device is turning on. If not, press SWITCH button on the device

Step2. Click the WIFI selection on your PC > find a WIFI named LinsnAP or Android AP or one name related to Linsn or Android>input password 12345678(default)> connect



Step3. If there is no showing under [**LAN**] option on the left interface, please add IP address manually:

right-click on choose [Manually Add Player...]> the default IP address is 192.168.43.1

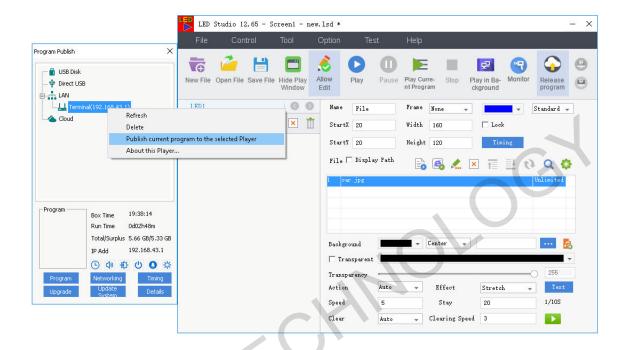
Official website: www.linsn.com
86 / 89
20190717



Step4.Make a program in the LEDStudio> right-click on the selected player]

L Terminal(192,168,43,1) choose [Publish current program to

Wait until the progress finishes, and L1 will play program automatically to the LED screen



3.5.2.2.2. Setting up via LEDStudio

Step1. Connect a LAN cable between PC and the device, power on the device, connect a LAN cable between PC and the device

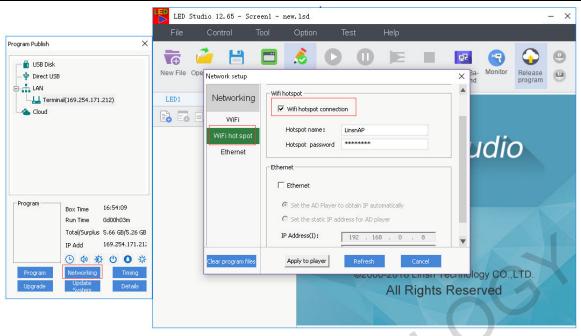
Step2. Follow either 3.5.2.1.1. or 3.5.2.1.2 in to connect the device

Terminal(169,254,171,212) >click [Networking]> select [WIFI hot spot] tab> check [Wifi hotspot connection]>input password 12345678>click [Apply to player]

Official website: www.linsn.com

20190717 87 / 89





Click the WIFI selection on your PC > find a WIFI named LinsnAP or Android AP>input password 12345678(default)> connect

Step4. Add IP address manually: right-click on choose [Manually Add Player...] > add the IP address

192.168.43.1>Make a program in the LEDStudio> right-click on choose [Publish current program to the selected player]>Wait until the progress finishes, and L1 will play program automatically to the LED screen

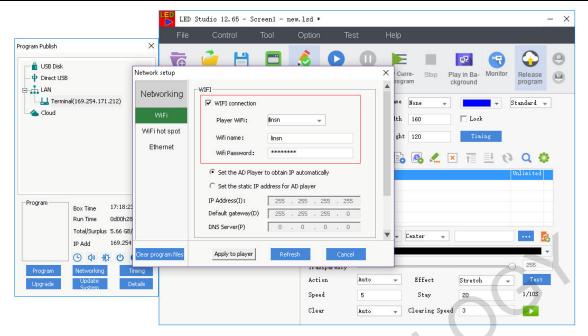
3.5.2.3. Releasing Program over WIFI

Step1. Connect a LAN cable between PC and the device, power on the device

Step2. Follow either 3.5.2.1.1. or 3.5.2.1.1. in section 3.5.2.1 to connect the device

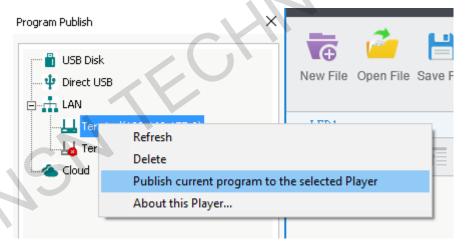
Step3. Click on click [Networking] > select [WIFI] tab > check [Wifi connection] > choose a WIFI name detected in the option > input name and password > select either [Set the AD player to obtain IP automatically] or [Set the static IP address for AD player] (DNS Server IP should be 192.168.1.1) > click [Apply to player]





Step4. Make a program (refer to **Error! Reference source not found.**) on the PC which is installed with LEDStudio and connect with the Wifi generated by L1

• Choose the corresponding device in [LAN], right-click and choose [Publish current program to the player]



• Wait until the progress finishes, and L1 will play program automatically to the LED screen

END