# Table of Contents

Chapterl	Introduction 1
1.1 Featu	res 1
1.2 Syste	m Requirements1
${\sf ChapterII}$	Installation&Uninstallation 2
2. 1 Insta	llation 2
2. 2 Unin	stallation
Chapter III	How to Run LedStudio 4
3. 1 LedS	tudio Interface 4
3. 2 LedS	tudio Menus 9
3. 2. 1	File Menu9
3	3.2.1.1 New9
3	3.2.1.2 Open9
3	3.2.1.3 Save9
3	3.2.1.4 Save as9
3	3.2.1.5 Open Demo FIle9
3	3.2.1.6 Open recent files
3	3.2.1.7 Logoff
3	3.2.1.8 Exit
3. 2. 2	2 Control Menu11
3	3.2.2.1 Play11
3	3.2.2.2 Play Last11
3	3.2.2.3 Play Next
3	3.2.2.4 Pause
3	3.2.2.5 Stop
3	3.2.2.6 Notify
3	3.2.2.7 Score Manager
3	3.2.2.8 Play PowerPoint File14
3	3.2.2.9 Stop PowerPoint File

3.2.2.10 Play VCD/DVD	14
3.2.2.11 Backup Program	14
3.2.2.12 Manager for LED Screen Sever	14
3. 2. 3 Tool Menu	
3. 2. 4 Option Menu	
3. 2. 4. 1 Screen Combination/synchronism	15
3. 2. 4. 2 Set Screen Brightness/ Contrast/ Color	18
3. 2. 4. 3 Screen Area	19
3. 2. 4. 4 Play background/foreground	21
1. How to enable Play Background	21
2. How to exit Play Background mode:	22
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	23
3. 2. 4. 8 Schedule Hide Setup	29
3. 2. 4. 9 Language	30
3. 2. 4. 10 Hide/Show Play Window	31
3. 2. 4. 11 LED Screen Monitor	32
3. 2. 4. 12 Hardware Setup	37
3. 2. 4. 13 Software Setup	38
3.2.4.13.1 Play Window	39
3.2.4.13.1.1 Lock to LED Screen	41
3.2.4.13.1.2 Floating	42
3.2.4.13.1.3 Multi-LED Combination/synchronis	sm 42
3.2.4.13.2 Auto	44
3.2.4.13.3 Networking	45
3.2.4.13.3.1 Online/real time remote control	46
3.2.4.13.3.2 FTP Server	52
3.2.4.13.3.3 Play Manager	56
3.2.4.13.4 Other	

3. 2. 4. 14 User Setup	59
3. 3. 5 Test Menu60	
3. 3. 5. 1 Grey Test1	61
3. 3. 5. 2 Grey Test1	61
3. 3. 5. 3 Grid Test	61
3. 3. 5. 4 Dot Test	62
3. 3. 5. 5 Color Bar Test	62
3. 3. 5. 6 Color Bar Test2	63
3. 3. 5. 7 Check Position	63
3. 3. 5.8 Check Color	63
3. 3. 6 Help Menu64	
3. 3. 6. 1 Help	64
3. 3. 6. 2 Knowledge	64
3. 3. 6. 3 Check IP Address	64
3. 3. 6. 4 About LedStudio	64
3. 3. 6. 5 Play File List	65
3. 3 How to make a .lsd file	
3. 3. 1 Setup Playing Window66	
3. 3. 2 Open a New Page of Program67	
3. 3. 2. 1 Add Step, Add Universal Display	
3. 3. 2. 2 Step Settings	68
3. 3. 2. 3 Unversal Display Settings	68
3. 3. 3 Add New Window69	
3. 3. 3. 0 Important Notes:	71
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	
3. 3. 3. 1.3 File Playing Settings	
3.3.3.1.3.1 Photo Playing Settings	
3.3.3.1.3.2 Video Playing Settings	75

3. 3. 3. 2 Text Window	76
3. 3. 3 Single Line Text Window	78
3. 3. 4 Static Text Window	79
3. 3. 5 Table Window	80
3. 3. 3. 6 Timer Window	82
3. 3. 3. 7 Database Window	85
Table Properties	86
Column Properties	88
3. 3. 3. 8 VCD/DVD Window	90
3. 3. 9 External Exe Window	91
3. 3. 3. 10 Video Window	92
3. 3. 3. 11 Date/Time Window	93
3. 3. 3. 12 Terperature/Humidity Window	95
3. 3. 3. 13 Copy Window	96
3. 4. 4 Save Program	96
3. 4. 5 Play Program	96

## **ChapterI** Introduction

#### 1.1 Features

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

LedStudio functions in two ways:

To setup 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 System Requirements

- Microsoft Windows XP/Windows Vista/Windows 7
- 1024\*768 display (or higher)
- 64MB of Disk Space
- · A DVI-D port provided by Graphics Card or Motherboard
- A USB port

# **ChapterII** Installation&Uninstallation

#### 2. 1 Installation

Follow the following steps to install and run LedStudio.

- 1. Download LedStudio from <a href="http://www.linsn.com/LED/LEDStudio10.exe">http://www.linsn.com/LED/LEDStudio10.exe</a> or get from the CD-Disk.
- 2. Double-click the LEDStudio.exe utbstudio and flowing on-screen instruction to finish installation.
- LedStudio program shortcut ICON on desktop

#### 2. 2 Uninstallation

1. Click Start find LedStudio folder, click Uninstall

Or go to Control Panel, click



, find and select Led Software

LED Software

#### to uninstall

2. Select Automatic, click Next till finish uninstallation.

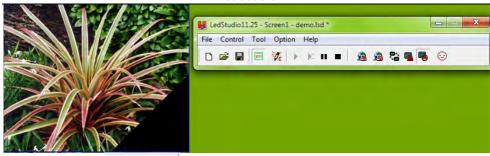


# Chapter III How to Run LedStudio

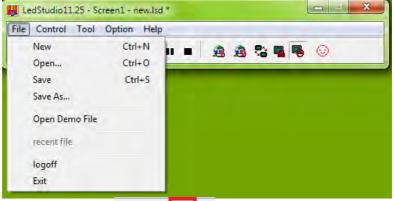
#### 3. 1 LedStudio Interface



Play Window: Simulated screen. Contents played by LedStudio show on Play Window.



New, Open, Save : Short-cut icons of New, Open..., Save in File Menu

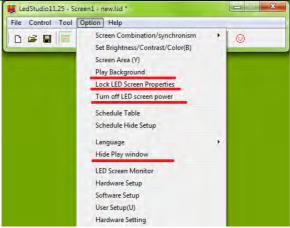


Hide/Show Play Window : short-cut icon of Hide/Show Play Window

Lock/Unlock Screen: short-cut icon of Lock/Unlock LED Screen Properties

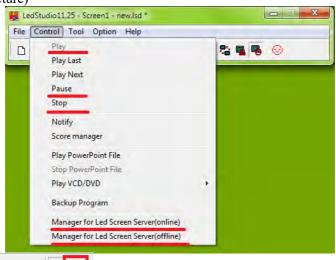
Turn on/off Led Screen power: short-cut icon of Turn on/off screen power

Play in Background set the Graphic card in extended mode; work with Play background/foreground

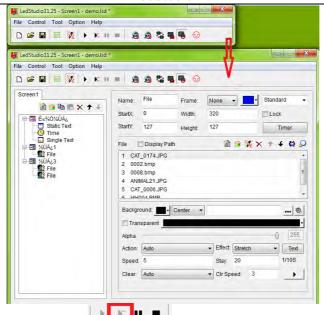


Play, Pause, Stop, Remote LED Screen Manager (online), Remote LED Screen

Manager (offline) : short-cut icons from Control menu (see following picture)

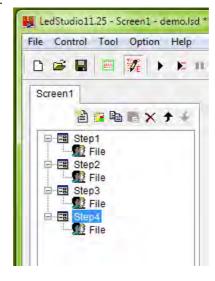


Allow Edit : collapse/extend the edit window.



Play Current Program Page: Start playing from the selected Step For example, select Step4, and click Play Current program page, it means step4, then step1, then step2

then step1, then step2...



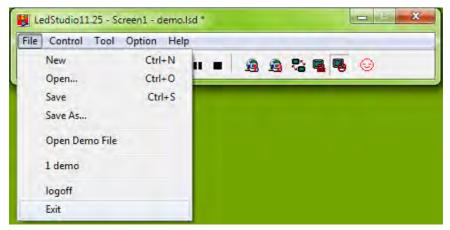
Change Face: change LedStudio appearance. Normally DO NOT Change Face.

#### 3. 2 LedStudio Menus



File Menu, Control Menu, Tool Menu, Option Menu, Test Menu and Help Menu

#### 3. 2. 1 File Menu



#### 3.2.1.1 New

New: create a new .lsd program file.

## 3.2.1.2 Open

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

#### 3.2.1.3 Save

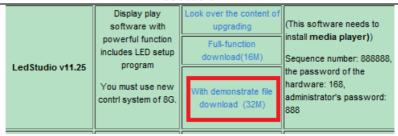
Save: save an .lsd file.

#### 3.2.1.4 Save as

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

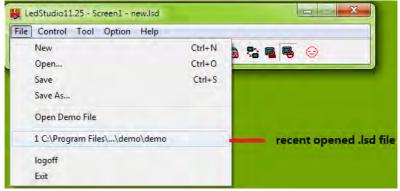
## 3.2.1.5 Open Demo FIle

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



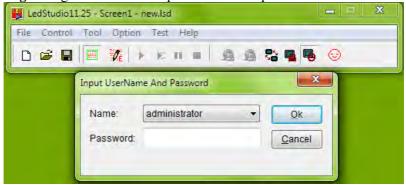
#### 3.2.1.6 Open recent files

Open recent files: open the recently .lsd files.



## 3.2.1.7 Logoff

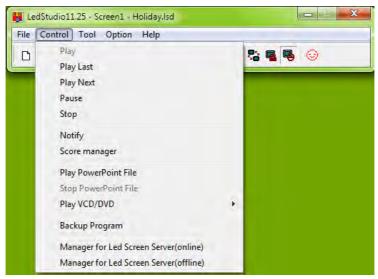
Logoff: log off LedStudio to prevent further operation.



#### 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).

**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.



Screen: choose which LED Screen to show Notify Message

Play time: Not yet put into use

Transparent: only work when Background color is Black. Transparent the black

background color.

Left/Right/Bottom: adjust the Notify Message position

**Play**: start showing Notify Message **Stop**: stop showing Notify Message

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

## 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

Show All: show time and show score



Reset: reset the time to count/countdown

**Start**: start counting/countdown time **Stop**: stop time counting/countdown

**Font**: font setting of time **Invertime**: countdown

Minutes: time duration for count/countdown

Top/Right: set position of time



Score settings:

**Player1**: Team/Player name, in two languages **Player2**: 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: add pictures
Font: font settings

**Bottom**: set the position of score contents (player name, score) **Bottom display**: display Team/player pictures below score.

## 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.

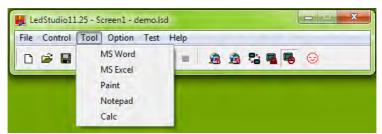
3.2.2.11 Backup Program

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

3.2.2.12 Manager for LED Screen Sever

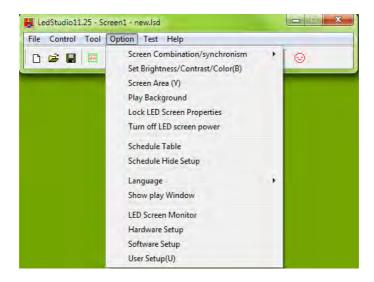
**Manager for LED Screen Sever:** to manage remote screen, please refer to Option Menu, Software Setup, <u>Networking</u> for details.

#### 3. 2. 3 Tool Menu



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

## 3. 2. 4 Option Menu



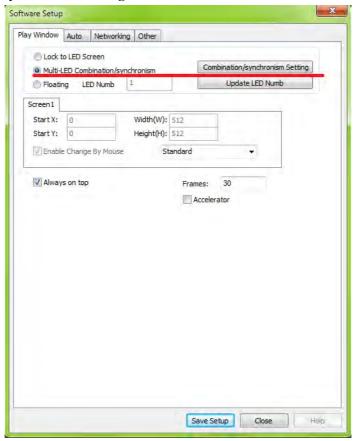
## 3. 2. 4. 1 Screen Combination/synchronism

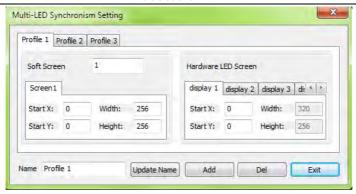
Screen Combination/synchronism: This is quick-Profiles-switch function.

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.

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

Screen Sc

Soft Screen: set numbers of Play Window/Simulated Screen

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

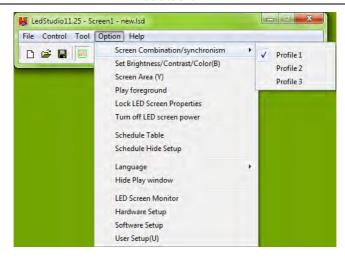
Connection

(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

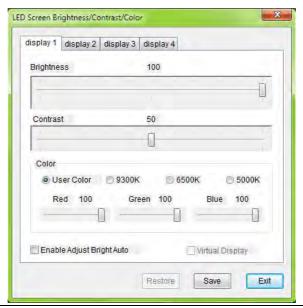
**Start Y:** set the Y position of (X, Y) coordination for the selected Soft Screen of Display

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 101 grades manual brightness adjustment

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

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

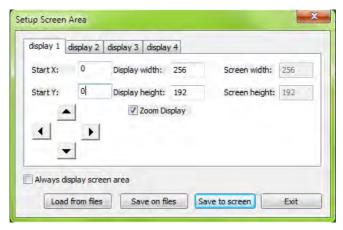
Enable Adjust Bright Auto: Enable if a Function Board is applied for automatic brightness adjustment

**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 color, 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.

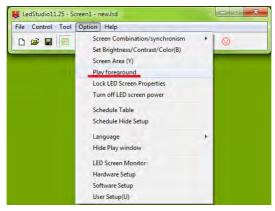
**Zoom Display**: enable Zooom Display, the Display width and Display height will change from **gray color to editable**.

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.

## 1. How to enable Play Background

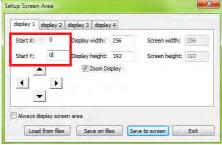
Take a 1280\*768 computer monitor for example:

1. set the Graphic card in extended mode

Area

- 2. execute foreground play/play foreground is to set the (X,Y) of Screen

to the Start X and StartY of Screen Area preset setting.



3. Exit foreground play/Play background: set the (X,Y) of Screen Area

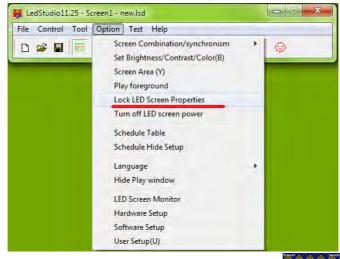
to

(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. cancel **desktop extends** to Monitor 2
- 2. reopen graphic card CLONE function

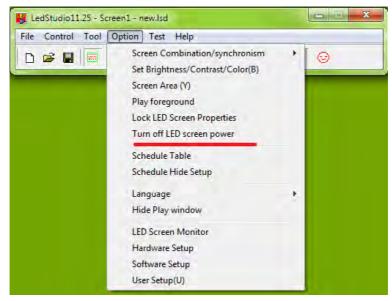
## 3. 2. 4. 5 Lock/Unlock LED Screen Properties



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

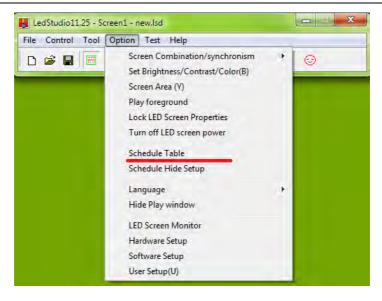


Turn on/off LED screen power: with Function Board remote power control applied, remote turn on/off LED screen power from LedStudio

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

#### 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

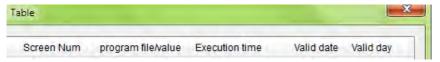


**Serial number**: the Scheduled Command list number **Command property**: the Scheduled Command Name

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



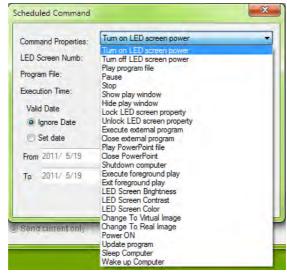
Valid date: time period that the Scheduled Command will take effect

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

To create a Scheduled Command:

- 1. Choose a command
- Choose a LED Screen(led display) that the Scheduled Command will take effect on
- 3. Set Time, Date and Days. Click OK.





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



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

(1281,0). The **Play Window** 

will not be seen in the computer monitor.

LED Screen Brightness: adjust the led display brightness.

0-100, total 101 grades manual brightness adjustment

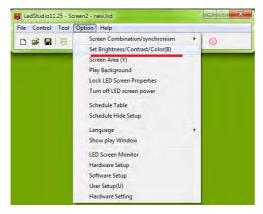
All LED Screen Brightness: adjust all the led display brightness

0-100, total 101 grades manual brightness adjustment

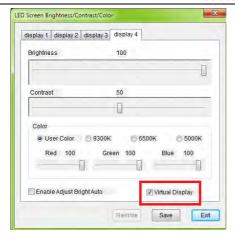
LED Screen Contrast: adjust the led display contrast.

0-100, total 101 grades 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



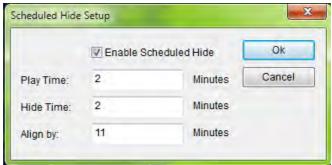
Note: For virtual led display, if **Virtual Display** does not enable, the virtual led display will be considered as real pixel led display, and only has 1/4 of visual size working. For example, a 384\*256 virtual led display, will work as 192\*128.

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

## 3. 2. 4. 8 Schedule Hide Setup



Enable Scheduled Hide: enable/disable Scheduled Hide

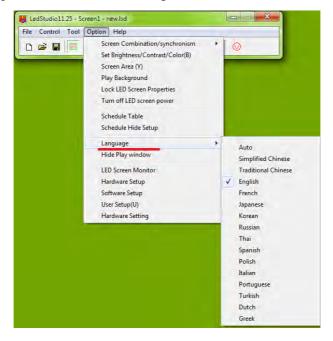
Play Time: show-up time duration for Play Window

## Hide Time: hidden time duration for Play Window

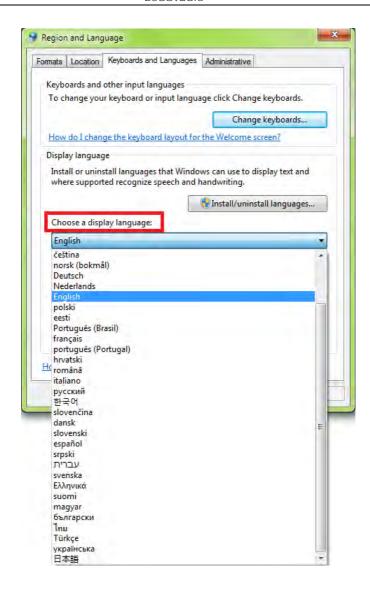
**Align by**: time moment to trigger Hide Time. For example, Align by 11 Minutes means 0, 11, 22, 33, 44, 55minute within an hour will activate the Hide Time. After Hide Time, it is Play Time.

## 3. 2. 4. 9 Language

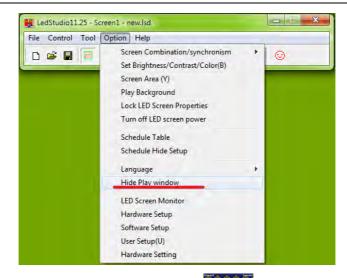
Change the LedStudio interface language. Ledstudio supports 15 interface languages, including: Simplified Chinese, Traditional Chinese, English, French, Japanese, Korean, Russian, Thai, Spanish, Polish, Italian, Portuguese, Turkish, Dutch, and Greek.



Note: For Windows 7, to change the interface language of LedStudio,
First, change the **system display language** to the target language, for example, **English;** Sceond, choose English in **Language** of LedStudio.



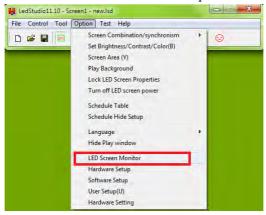
## 3. 2. 4. 10 Hide/Show Play Window



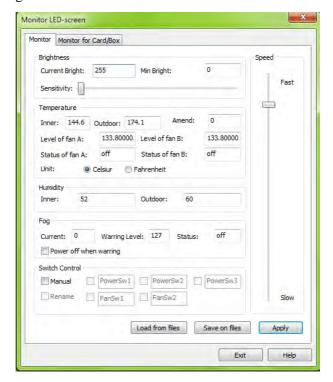
Hide Play Window: Hide the Play Window, led display will show the according computer desktop (desktop within the Screen Area)

#### 3. 2. 4. 11 LED Screen Monitor

LED Screen Monitor is Function Board/Card control panel.



## Monitor: Settings



Save on files: save settings as a .dat file

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

**Brightness:** 

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

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

Sensitivity: set the sensitivity for light sensor

## **Temperature:**

Inner: the temperature detected by internal temperature sensor

Outdoor: the temperature detected by External temperature sensor

Amend: if detected temperature differs to the environment temperature, amend the

value.

Level of fan: Set the temperature value to activate the fan relays of Function Board.

Temperature is detected by internal temperature sensor

Status of fan: on/off

**Humidity:** 

**Inner**: Internal Humidity Value **Outdoor**: External Humidity Value

Fog (Function not ready)
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.

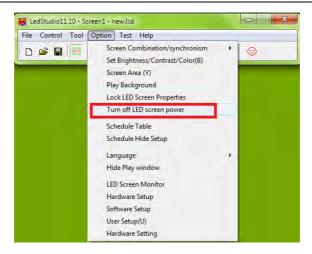
#### **Switch Control**

Manual: Manually switch on/off the power relays

Rename: rename the power relays names

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

Turn off LED screen power: Turn on/off relays (Power1, Power2, Power3) together



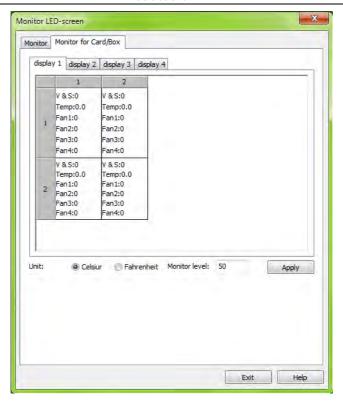
Note: when **Manual** Switch Control enabled, the **Turn off LED screen power** will automatically disable.

**Monitor card/box** (function not ready): read and show feedback data from every receiving card

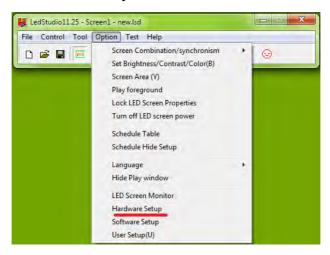
V&S: version number

Temp: Temperature value

Fan1/Fan2/Fan3/Fan4: status of fan. 0 for off, 1 for on Unit: show value of temperature in Celsius or Fahrenheit Monitor Level: set temperature value for monitoring



### 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

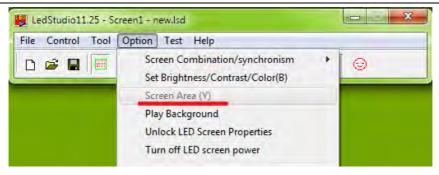


Load: to select the correct .CON file

Test: test the selected .CON file on receiving cards

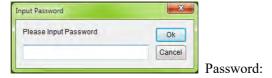
**Enable Change Screen Area**: allow the .CON file to change the size of Screen Area

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



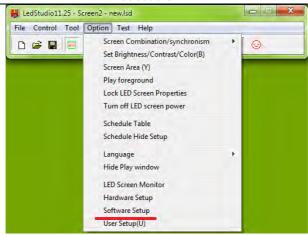


Load: to select the correct .RCG file

Test: test the selected .RCG file on receiving cards

**Save to Led Screen/led display**: 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



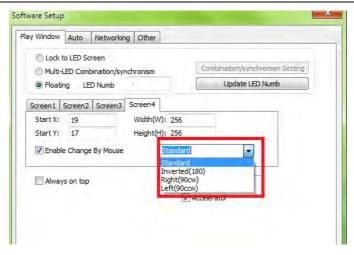
Play Window Setting:



Always on top: enable and Play Window will always on top

**Frames**: Set frames per second **Accelerator**: enable accelerator

Save Setup: save settings of Play Window





Inverted (180):





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, cannot 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 page15). 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

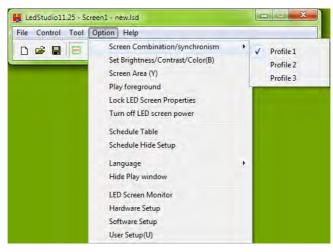


Connection (one Red rectangle means one Hardware LED Screen)

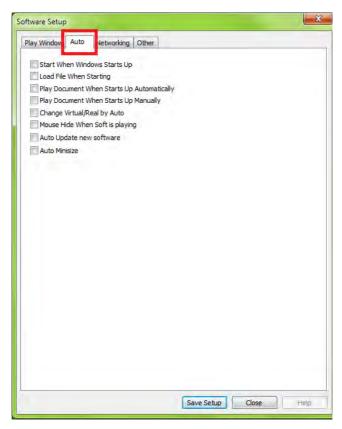
**Start X:** set the X position of (X, Y) coordination for the selected Soft Screen of Display

**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 Auto



**Software Setup 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



**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.

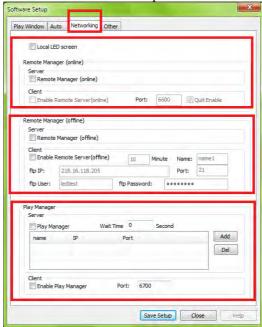
Mouse hide when soft is playing: hide the mouse pointer in Play Window when Play Window is playing.

**Auto update new software**: automatically update LedStudio software **Auto minimize**: Minimize LedStudio automatically

## 3.2.4.13.3 Networking

Save Setup: save settings

Networking setting is to remote control the led display (computer). Computer directly connects the **led display** is **Server Computer** Computer to remote control the Server Computer is **Client Computer** 



Receive Net Order (add in version11.72): not put into common usage

# 3.2.4.13.3.1 Online/real time remote control

### 1. Define

Online remote control/real time remote control: allow Client Computer LedStudio to fully control Server Computer LedStudio.

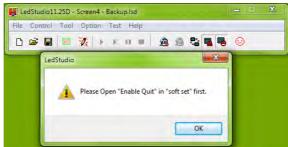
Computer directly connects the **led display** is **Server Computer** Computer to remote control the Server Computer is **Client Computer** 

# 2. Settings

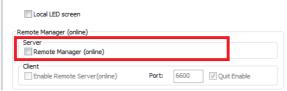
1. Server computer LedStudio, enables Local LED screen and Client Enable Remote Server(online), save setup



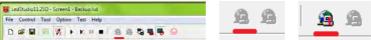
Note: Quite Enable, if untenable it, Server Computer LedStudio does not close.



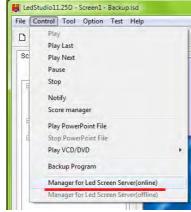
2. Client computer LedStudio, enables Server Remote Manager (online), save setup



3. Client compute LedStudio, Remote LED Screen Manager(Online) Icon changes from inactivate to activate



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



4. Client Computer LedStudio, Click Remote LED Screen Manager





#### Click Add



Screen Name: Type in the led display name (or leave it empty)

Server IP: Type in Server Computer IP.

Tip: use the Check IP Address in Help Menu, to check the Server Computer 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

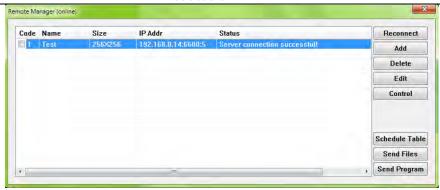
User Password: the LedStudio User password of Server Computer

Click Ok

# 3. Available Operations after Setting Up

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

#### LedStudio



### 1. Reconnect/Add/Delete/Edit/Control

**Reconnect**: try reconnecting to the added **Server Computer** 

Add: add another Server Computer

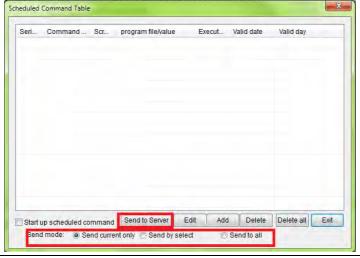
**Delete**: delete a selected **Server Computer Edit**: change info of selected **Server Computer** 

Control: access to the Server Computer Desktop, realize Remote Desktop Control.

## 2. Schedule Table

Schedule Table: set Schedule Command Table (refer to 3. 2. 4. 7 Schedule Table)

and send to Server Computer LedStudio



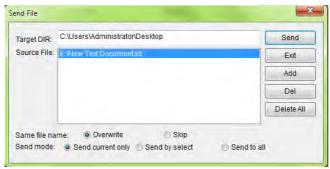
**Send current only**: send the Scheduled Command Table to the current selected **Server Computer** 

**Send by select**: 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

#### 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

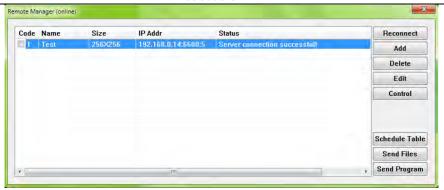
Same file name **Overwrite:** if **Target DIR** has a file with the same name of **Source File**, **Source File** replaces the **Target DIR** file

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

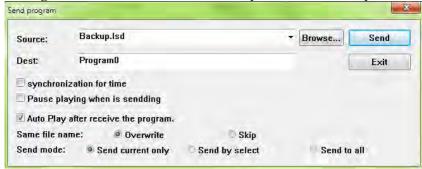
**Send to all**: send **Source File** to all Server Computers listed in Remote LED Screen Manager Online

#### LedStudio



# 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.

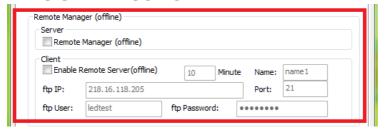
Same file name **Overwrite**: if **Dest** has an .lsd file with the same name of **Source**, **Source** .lsd File replaces the **Dest** .lsd file

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

 $\boldsymbol{Send}$   $\boldsymbol{current}$   $\boldsymbol{only}:$  send the  $\boldsymbol{Source}$  .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

### 3.2.4.13.3.2 FTP Server



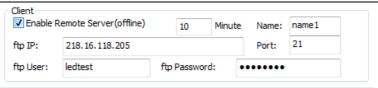
## 1. Define:

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

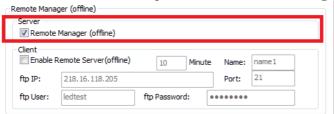
Computer directly connects the **led display** is **Server Computer**Computer edits settings and files for Server Computer is **Client Computer**Before **Settings**, the **FTP Server** should be setup and ready.

# 2. Settings:

In LedStudio of Server Computer Enable Remote Server (offline)
 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



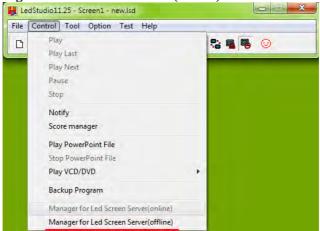
2. In LedStudio of Client Computer Enable Remote Manager (offline)



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



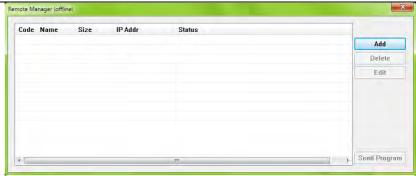
And Manager for Led Screen Server (offline) is activated.



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

### LedStudio

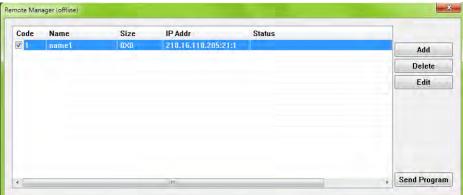


Click Add



Type in the **same FTP Server info** as the **Server Computer Screen Name**: Name for the Server Computer Led Display

### Cick OK



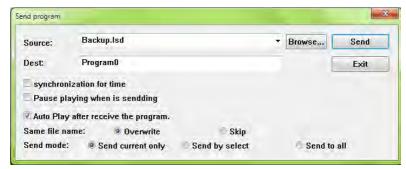
Add: add another FTP server

**Delete**: delete the selected FTP server **Edit**: edit the selected FTP server

# 3. Available Operations

# 1. Send Program

 ${\bf Send\ Program}:$  send .lsd program from  ${\bf Client\ Computer}$  to  ${\bf FTP\ Server\ Computer}$ 



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

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

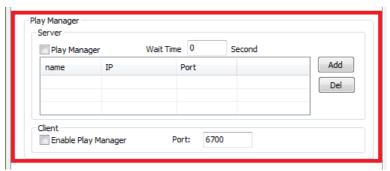
 $\label{eq:Send_current} \textbf{Send current only} : \textbf{send the Source} . \\ \textbf{lsd file to the current selected FTP Server}$ 

### Computer

**Send by select**: 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 directly connects the **led display** is **Server Computer** Computer to remote control the Server Computer is **Client Computer** 

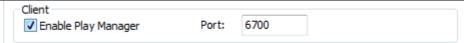
Purpose: Set all the listed Server Computers Play/ Stop synchronously



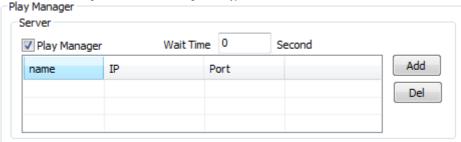
# 2. Settings:

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

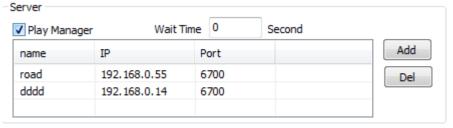
## 1. Server Computers Enable Play Manager



2. Client Computer Enable Play Mnager



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

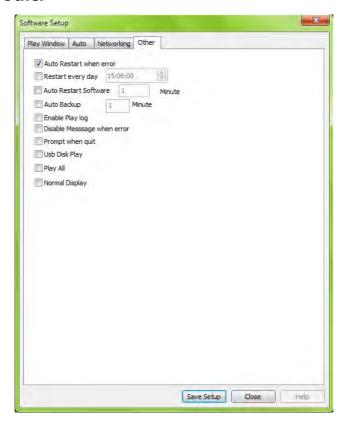


3. Save Setup.

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



#### 3.2.4.13.4 Other



Auto Restart when error: automatically restart LedStudio when encounter error

Restart every day: schedule restarting LedStudio everyday

Auto Restart Software: restart LedStudio every preset minute(s)

Auto Backup: automatically back up files of .lsd file

Enable Play log: enable Play log, in LedStudio Installation Folder,

there is a playlog.txt listing play info of media files played by LedStudio

Disable Message when error: does not allow error message prompt

Prompt when quit: ask before quit

Usb Disk Play: LedStudio load and play .lsd program from USB disck as priority

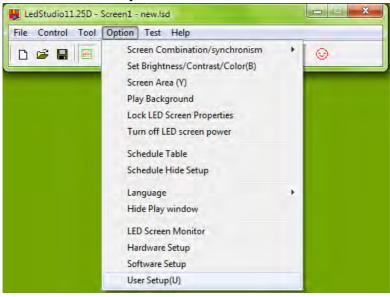
Play all: all Screens Play/Pause/Stop together

#### LedStudio



**Normal Display:** For No-Sending Card Mode Only. LedStudio capture the contents of **Screen Area** and send directly to receiving cards.

### 3. 2. 4. 14 User Setup





Password: 888

Add: add a new user account for LedStudio
Delete User: delete a selected User account
Edit User: Edit the selected User account info

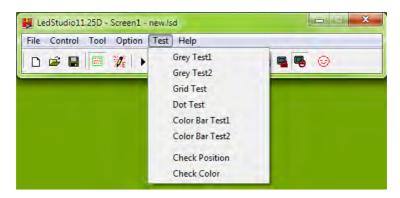
Input Password

Use Password when StartUp: when open LedStudio, it asks password to unlock.

3. 3 Features introduction

4.

#### 3. 3. 5 Test Menu

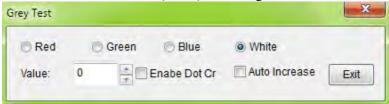


### 3. 3. 5. 1 Grey Test1

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

# 3. 3. 5. 2 Grey Test1

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

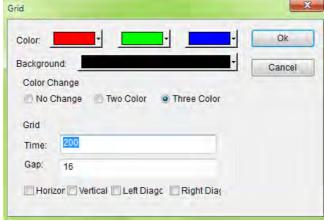


**Auto Increase**: continue testing next grey level up to 255. Then test again from 0 to 255.

**Enable Dot Correction**: Enable the effects of Screen Area Color Correction (refers to Screen Area Color Correction)

#### 3. 3. 5. 3 Grid Test

Grid Test: 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

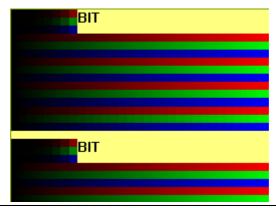
### 3. 3. 5. 4 Dot Test

Dot Test: check for bad pixels



### 3. 3. 5. 5 Color Bar Test

Color Bar Test1:



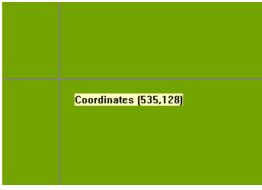
### 3. 3. 5. 6 Color Bar Test2

Color Bar Test2: Choose color for color bar test



### 3. 3. 5. 7 Check Position

Check Position: get coordination of Mouse Pointer

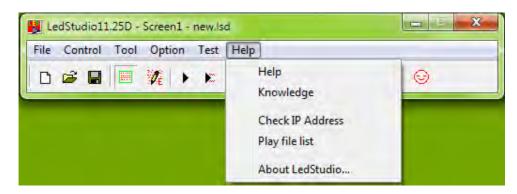


### 3. 3. 5.8 Check Color

Check Color: get RGB info



# 3. 3. 6 Help Menu



### 3. 3. 6. 1 Help

Help: activate the LedStdio manual

# **3. 3. 6. 2 Knowledge**

Knowledge: some simple tips for LedStudio

### 3. 3. 6. 3 Check IP Address

Check IP Address: get the IP Address of computer

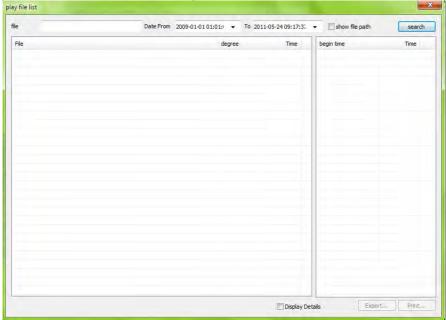
#### 3. 3. 6. 4 About LedStudio

About LedStudio: show LedStudio Version

License: manage license

### 3. 3. 6. 5 Play File List

Play file list: a log file for all the played files by LedStudio



File: type in the File Name for search

Date From TO: select a time period for search

Show file path: show the played file path in the computer

Search: start searching and get result listed

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 to Microsoft Excel file format

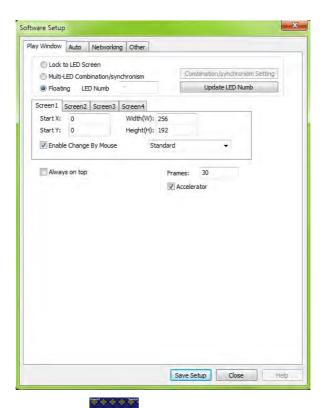
**Print**: print the search result

**Display detail**: when export or print the search result, including the info of **Begin time** and **Time** (11.72version, 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 Setup Playing Window



Usually, set the **Play Window** the same size as that of **led display**.

Select Lock to LED Screen. LedStudio will set the Play Window size according to .CON file and Start X and Start Y is (0, 0)

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



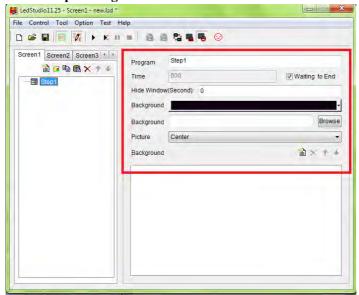
**Add Step**: Steps are played in order, from Step 1 to Step 2 to last Step then back to Step 1. It is Step1 to Step Last to Step1 circle loop play.

**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**: 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.

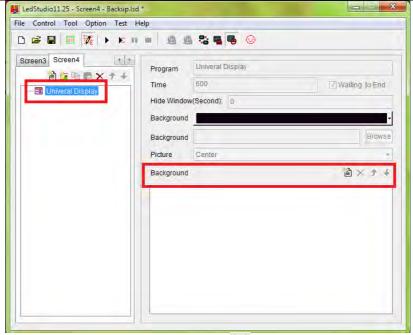
**Background**: Background color of **Play Window Background**: Background picture of **Play Window** 

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 .

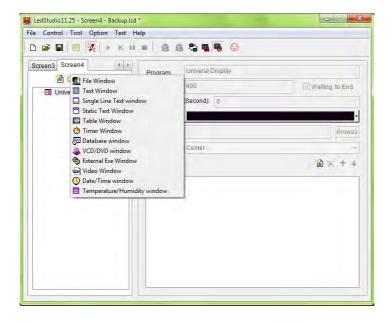
To change the order of page, use the moving button .

#### 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

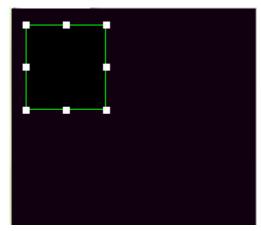


# 3. 3. 3. 0 Important Notes:



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

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):







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**.

**From Computer 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.

Front half: start hiding Time Window earlier.

For example, From Computer Time By 1 Minute 10(X) Sec,

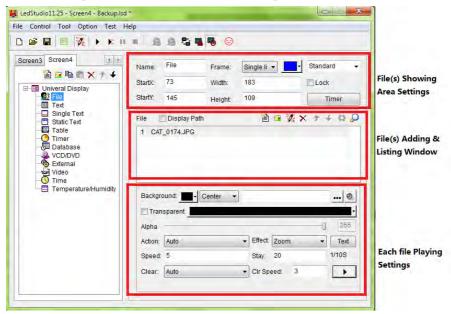
Without Front half enable, Time Window start hiding when second reaches 59 second

With Front half enable, Time Window start hiding when second reaches 54(59-X/2) second

**From Play 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. 1.2 File(s) Adding & Listing Window

Display Path: Showing the file path in the computer



Add File Add Homepage Edit File Delete Move Up/Down Same Mode for all file Find

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: move the selected file up/down

Same Mode for all file: make all files apply the same Playing Settings

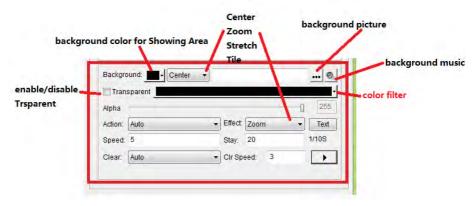
**Find**: find file(s) in the list

# 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.

**Alpha**: 0-255, 0 is 100% transparent, means the selected file will disappear from **Showing Area**, Showing Play Window Background or contents of below layer

### Showing Area.

**Action**: how the pictures come in **Effect**: zoom, stretch, center, tile

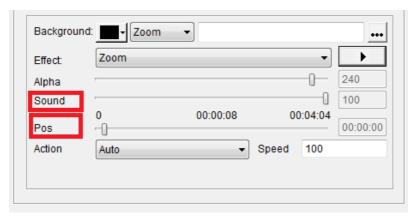
Text: add text

**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

**Alpha**: 0-255, 0 is 100% transparent, means the selected file will disappear from **Showing Area**, Showing Play Window Background or contents of below layer Showing Area.

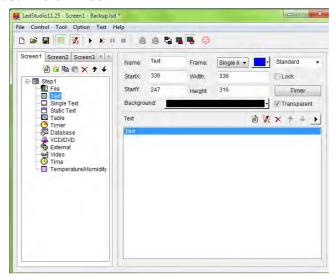
Sound: 0-100. Adjust the sound of the video

Pos: show current playing time of video

Action: how video come in

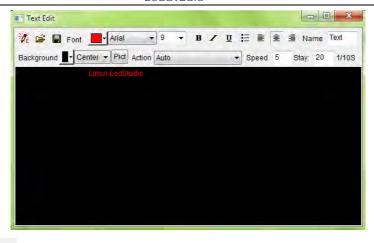
Speed: the coming in speed. The larger value, the slower speed

#### 3. 3. 3. 2 Text Window



Transparent: Transparent the Showing Area background color





Edit : show/hide the text window

Open : open a .txt file

Save : save as .txt file

Font settiings: Font 

Font

Name: default as Text

# **Background** color

Pict: picture, background picture.

Center/zoom/stretch/tile effects for background picture

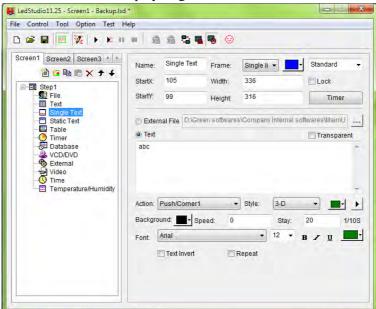
Action: action for background picture

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

Stay: time duration for background picture to stay

### 3. 3. 3 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

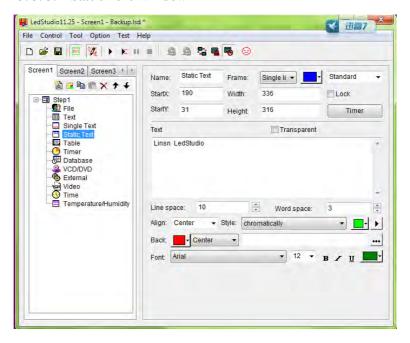
Stay: time duration for text to stay

Font: Font settings for text

Text invert: abc ---- cba

Repeat: abc---abcabcabcabc

#### 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.

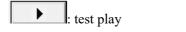
Text: text input

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



Background: Back Center -

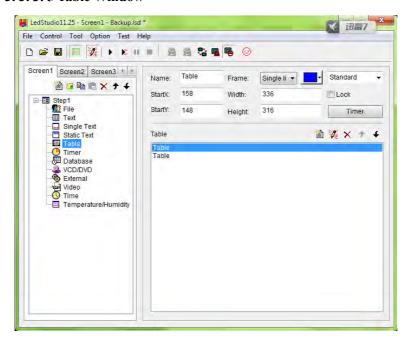
**Background** color

### ...: add background picture

# Center/zoom/stretch/tile for background picture

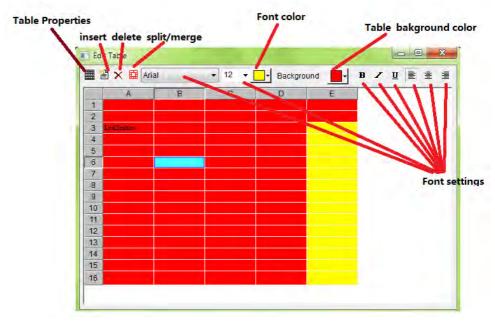
Font settings: Font Arial - 12 - B / U

#### **3. 3. 5 Table Window**

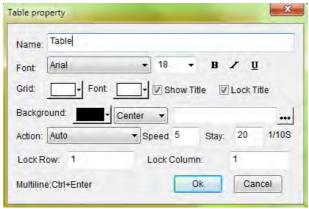


**Table Window:** Used to edit the play list data.





# **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

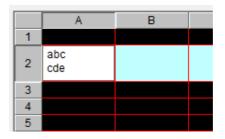
Speed: table coming in speed. The larger value, the slower speed

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.

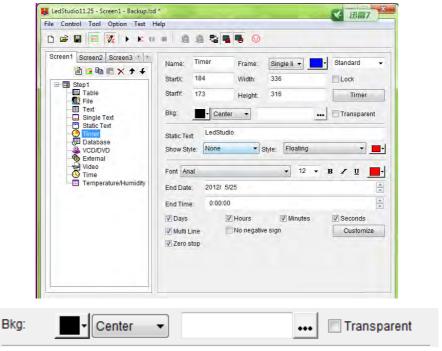
**Lock Column**: for example, Lock Column 2, the second column will stay. This only works in Left/Right Action effects.

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



#### 3. 3. 3. 6 Timer Window

Timer window: Used for countdown

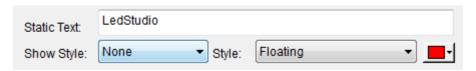


Bkg: background color for Timer

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:	2012/ 5/25		<u>*</u>
End Time:	0:00:00		
Days	✓ Hours	Minutes	Seconds
Multi Line	No negative sign		Customize
Zero stop			

**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

Input Format: %M/%D/%Y/ %h: %m: %s (adjust the order accordingly like Chinese

format for date %Y %M %D)

%M for month

%D for day

%Y for year

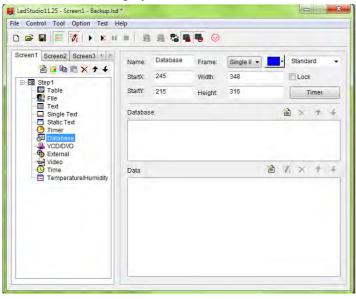
%h for hour

%m for minute

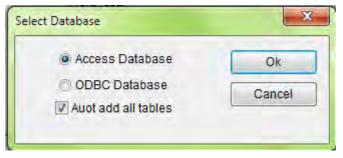
%s for second

#### 3. 3. 3. 7 Database Window

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



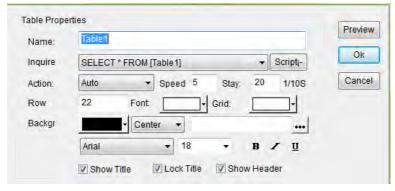
# Add Database



**Set Table** 



# **Table Properties**



Inquire: read which part of the Database

Scripti-: Scripting

Action: effects for how the table comes in Showing Area

**Speed**: table 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: Table 1 color Grid: table grid color

**Backgr**: background color of table ...: add background picture for table

Center/zoom/stretch/tile for background picture

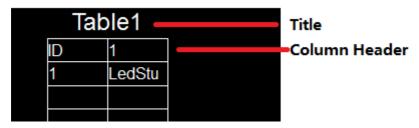
Font settings for Table 1:



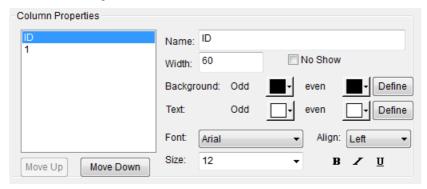
Show title: hide/show Table title

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 **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





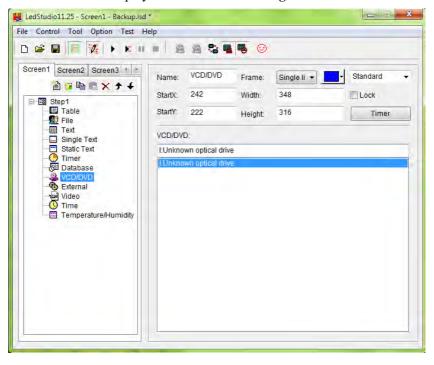
# Font settings of selected column:



Small or Foual

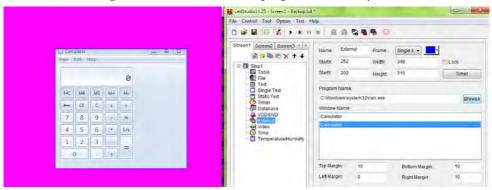
#### 3. 3. 3. 8 VCD/DVD Window

### 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

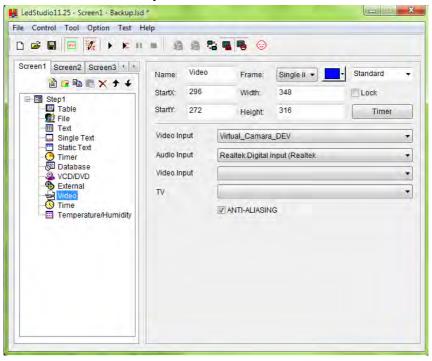
Window Name: Select a .exe listed to run in Play Window

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

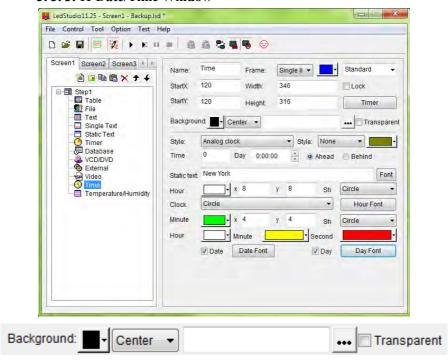
#### 3. 3. 3. 10 Video Window

**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.



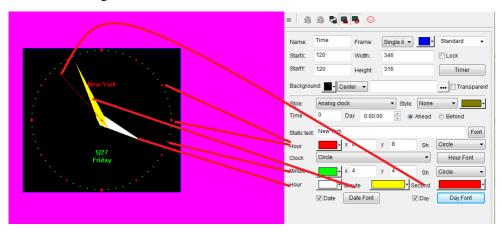
Style: Time style

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

Static text: New York

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

SH: shape

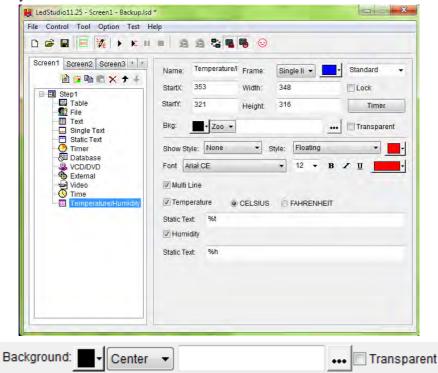
Clock: shapes for Analog clock

Hour Font: font setting when SH (shape) is Digit

**Date/Day**: show/hide Date/Day **Date Font/Day Font**: font settings

### 3. 3. 3. 12 Terperature/Humidity Window

**Temperature/Humidity window:** this is used to display temperature and humidity.



Background color for 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

Temperature	© CELSIUS	
	OLLUIO0	O I / II I CE I II I E I I

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. 4. 4 Save Program

After Click on the saving button or select File Menu, save.

# 3. 4. 5 Play Program

To play current program files, click the button to start; to pause; to stop, or select from Control Menu.

To play a saved .lsd program file, click Open button ........

END.