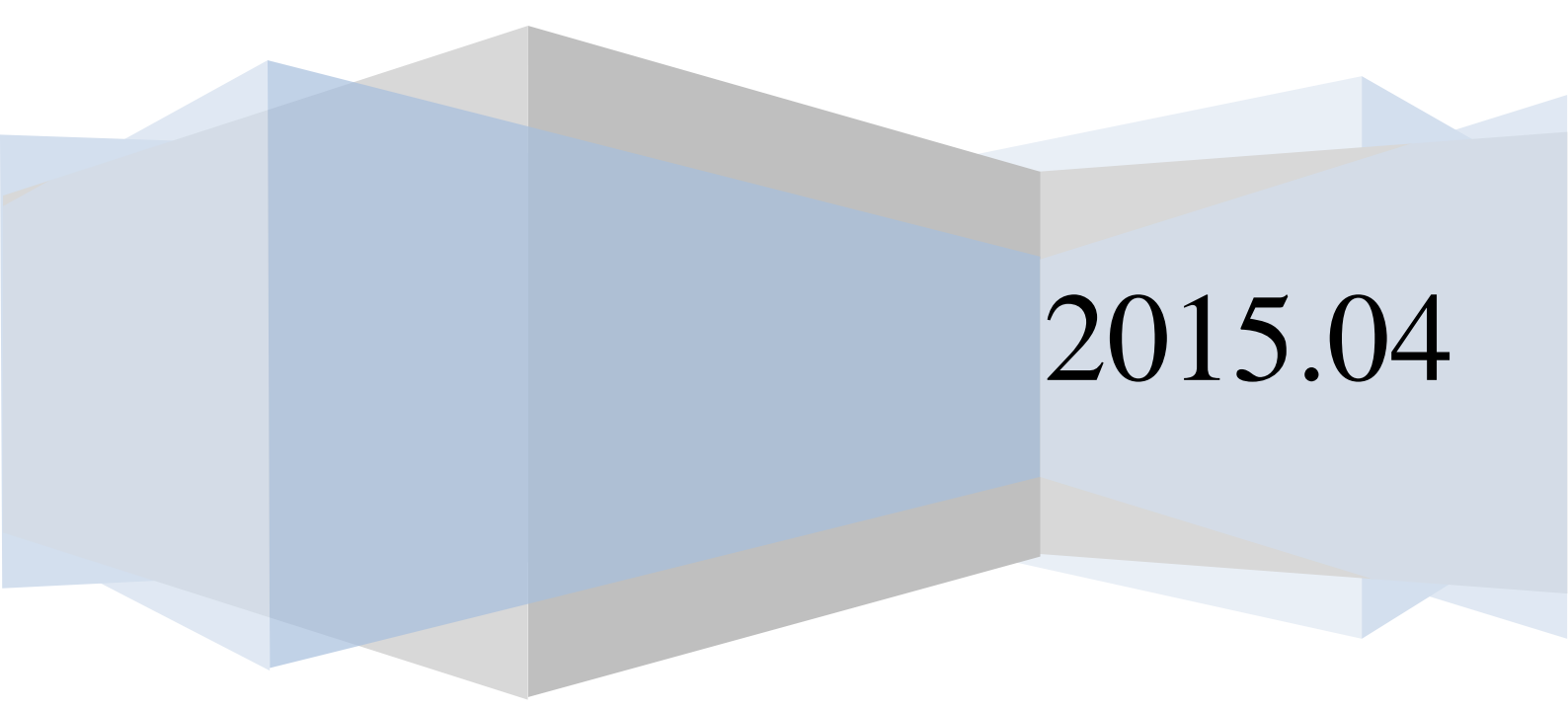

Foshan Linetx Technology Co., Ltd.

Linetx GLACS System

Specification Handbook



2015.04

This Specification Handbook is written for Linetx Glacs system, suitable for guiding to setup the GLACS (Linetx Light Advanced Control System), The Specification Handbook version is v2.20

Normally used device description for GLACS:

LABEL	DEVICE TYPE	VERSION
GLACS	LED Light Furniture	V2.20

The instructions is writing and publishing by **Linetx Company**, The ultimate power of interpretation is vested with our company.

All information in this spec is based on standard conditions and slight variation may occur with different conditions. All inf. includes subsequent upgrades in our company is subject to change. We apologize for any delay advice.

More Info please visit: <http://www.Linetx.com>

Technique Tel: +86 757 88323077

Mail: sales@Linnetx.com

TABLE OF CONTENTS

1. GLACS BRIEF INTRODUCTION	1
1.1. BRIEF INTRODUCTION	1
1.2. SYSTEM FEATURE	1
1.3. GLACS ARCHITECHURE DIAGRAM	1
2. LOGIN GLACS CONTROLLER TO OPERATE.....	2
2.1. LOGIN	2
2.2. LOGIN GLACS CONTROLLER USING PC	4
2.3. LOGIN GLACS CONTROLLER USING MOBILE PHONE	5
3. GLACS PC CONTROL.....	7
3.1. SCENE LAYOUT OF LED FURNITURE	7
3.2. SET UP LED FURNITURE GLACS CODE	7
3.3. ILLUMINATE LED FURNITURE WITH MUSIC RHYTHM	9
3.4. ILLUMINATE LED FURNITURE WITH DMX EFFECT	12
4. GLACS PHONE CONTROL.....	14
4.1. CONTROL SINGLE LED FURNITURE.....	14
4.2. CONTROL ALL OF LED FURNITURE MEANTIME.....	14
APPENDIX ABBREVIATIONS	15

1. GLACS Brief Introduction

1.1. Brief Introduction

GLACS is the abbreviations of **Linetx Light Advanced Control System**, Linetx realized a whole new way to control the LED light furniture---using high speed MCU and wireless technology, Linetx makes best effect to innovative the area of traditional LED furniture to create the rich effect, easy to use and scalable LED light control system.

1.2. System feature

- Music rhythm control: GLACS system can unify the luminous colors of LED furniture and let the color changing synchronous with music rhythm;
- Rich music mode: GLACS supports many music rhythm follow effect and its easy to be setup ;
- DMX-Like Effect: GLACS supports color changing effect similar with DMX. And all transform effects are very easy to be edited by PC;
- Wireless control: GLACS supports the use of cell phone (WIFI) or Ethernet to control all LED furniture and upto 150 LED Furnitruue supported. And IR controller is supported too.
- USB Support: Program and save different effect files into USB. GLACS supports the insertion of a USB disk to play all effects.
- Function Extention: GLACS's functions are continuous to expand and will keep updating your software system in time.

1.3. GLACS Architechure Diagram



2. Login GLACS Controller to Operate

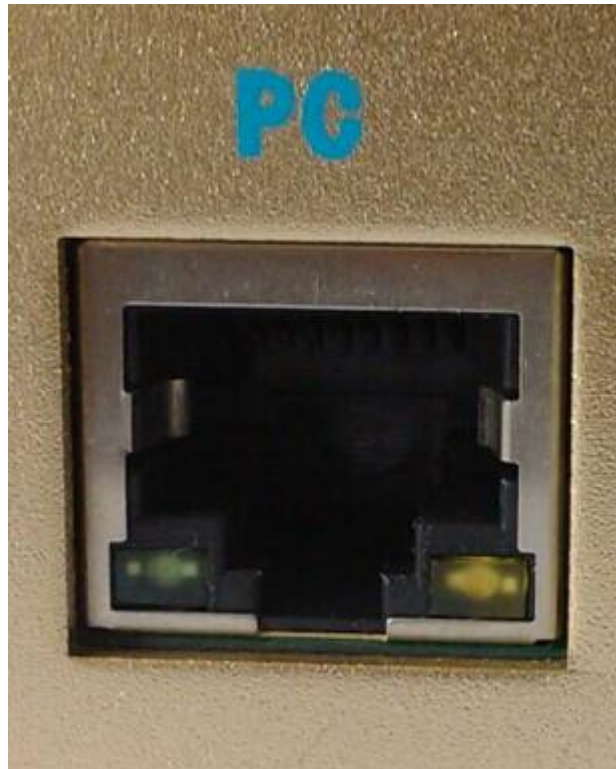
2.1. Login

Before control the LED light of furniture, should be login GLACS system with software APP to PC or Cell Phone.

2.1.1. Connect GLACS controller to PC

1) Ethernet Port

GLACS controller provides a RJ45 ethernet port to install the system through IP network. Before using PC APP to control the GLACS system, please use UTP cable to connect GLACS system between controller and PC. The shape and position of GLACS controller's RJ45 port is as below picture 2-1-1:



Picture 2-1-1 GLACS configure RJ45 Port

2) Configure Cable

Configure cable is an 8-core unshielded twisted-pair crossover cable (UTP Cable).

3) Connect to config with UTP cable

Connect the cable to the GLACS controller's RJ-45 port named PC and the other end connects to PC's Ethernet port. If your network environment has switch, GLACS controller can be connected to PC through switch using UTP cable. But please note that the DHCP server can not be conflict.

2.1.2. Connect to GLACS controller with Mobile Phone

GLACS controller is also provided WIFI hotspot to support connect controller to phone (currently only support Android phone).

1) WIFI hotspot

Before taking operation, make sure the GLACS controller is powered up. Then open your phone's WIFI setup configuration page to find the WIFI hotspot named "GLACS":



2) Connect to the WIFI Hotspot named "GLACS"

Just click the WIFI hotspot "GLACS" and no password, just wait a few seconds, WIFI will connect to the GLACS controller and the controller is ready to login from phone APP.

2.1.3. IP Address configuration on PC

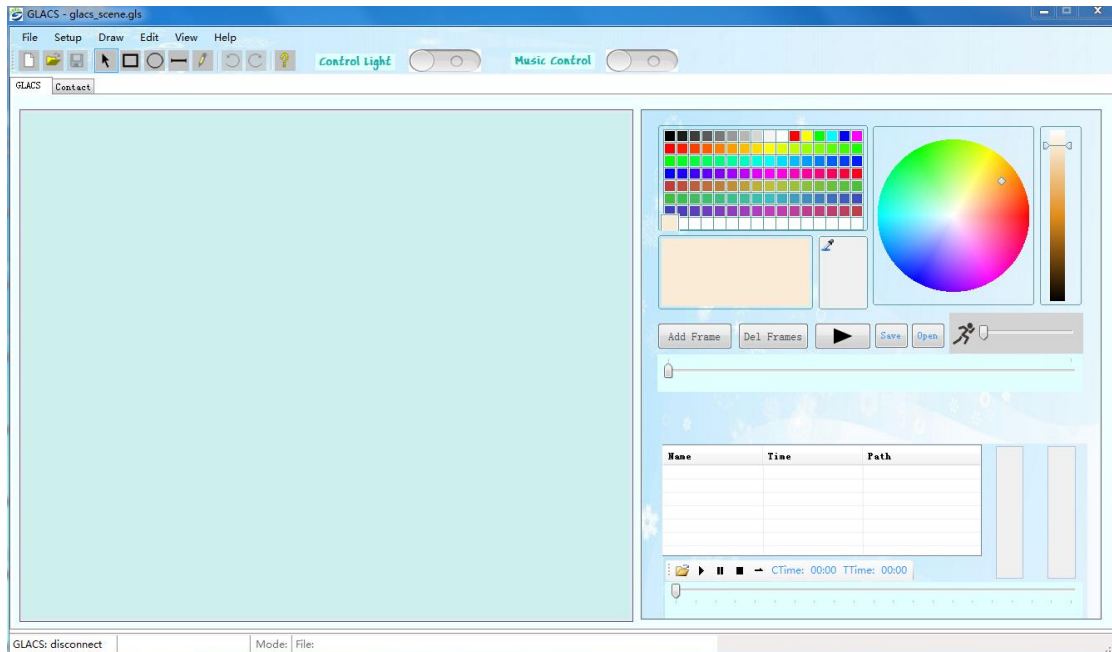
GLACS controller of default access IP address is 10.10.10.254, the subnet mask is 255.255.255.0, setup the PC NIC's address with a same segment as GLACS controller 10.10.10.111 to connect to the GLACS controller.

2.1.4. IP Address configuration on Mobile Phone

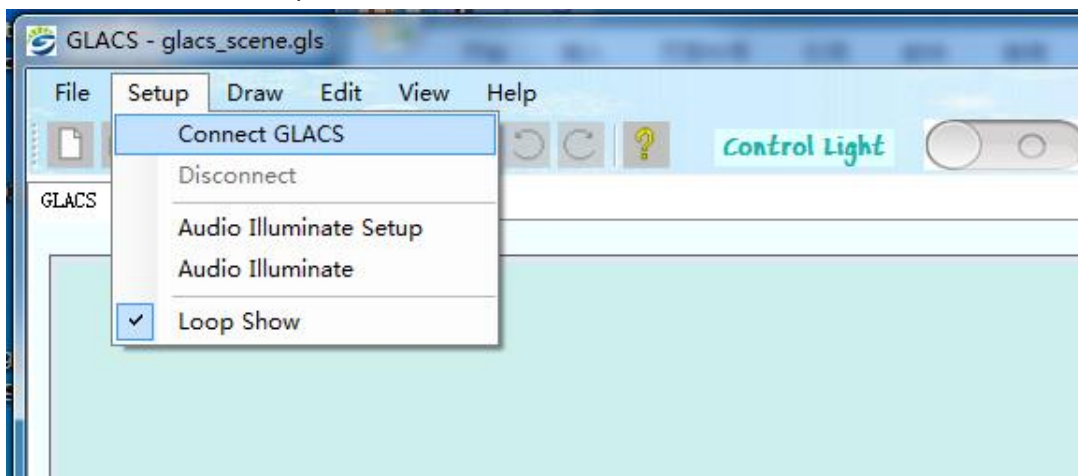
GLACS controller of default access IP address is 10.10.10.254, the subnet mask is 255.255.255.0, and your phone's IP address is auto obtained by DHCP protocol, so nothing needs to configure the IP address of your Phone.

2.2. Login GLACS controller with PC

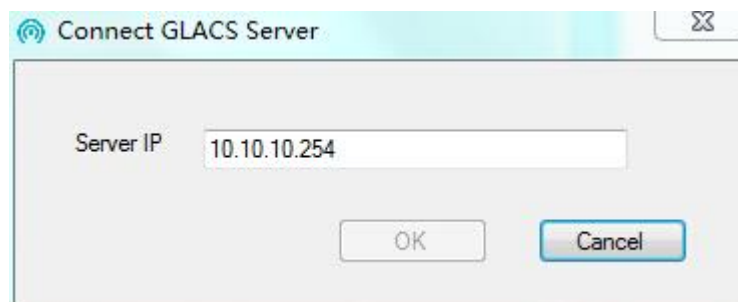
Step 1: Start up the PC APP called “GLACS.exe”, the UI of this APP is look like this:



Step 2: Click the menu “Setup”, then click its sub menu “Connect GLACS”:

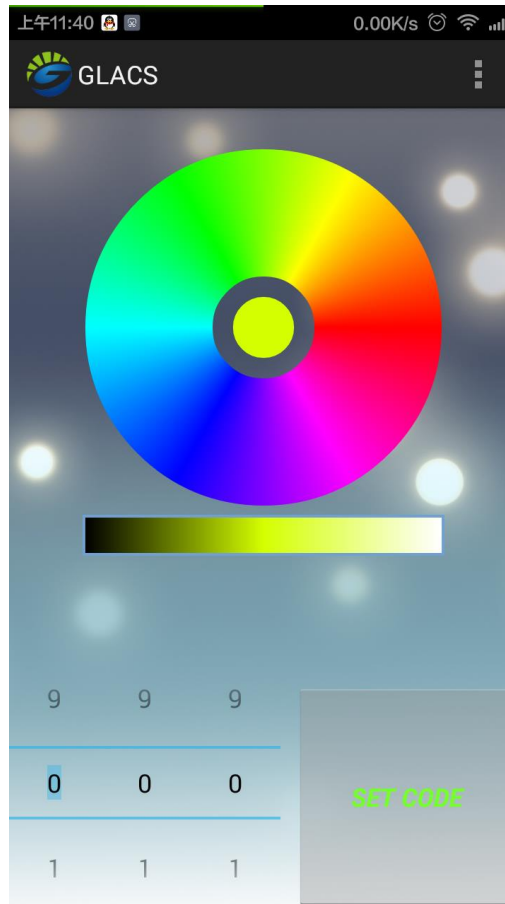


Step 3: Fill the GLACS controller’s IP address “10.10.10.254” into the pop-up diagram, and click the button “OK”. If everything is well setup, the status bar will remind that the GLACS controller has been connected.

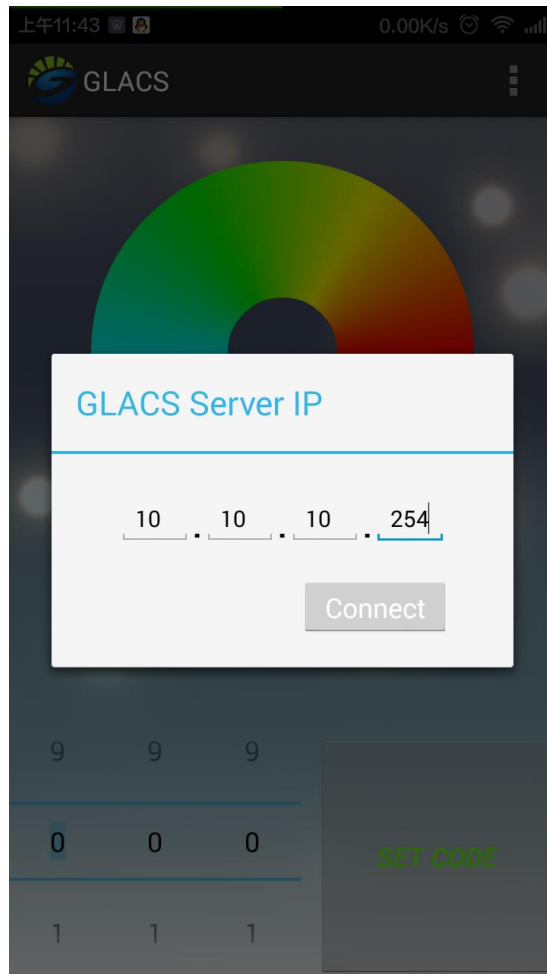


2.3. Login GLACS controller using Mobile Phone

Step 1: Open the APP called GLACS, and the UI of this APP is look like this:



Step 2: Click the config button of Phone, and fill in the IP address of GLACS controller in pop-up menu :



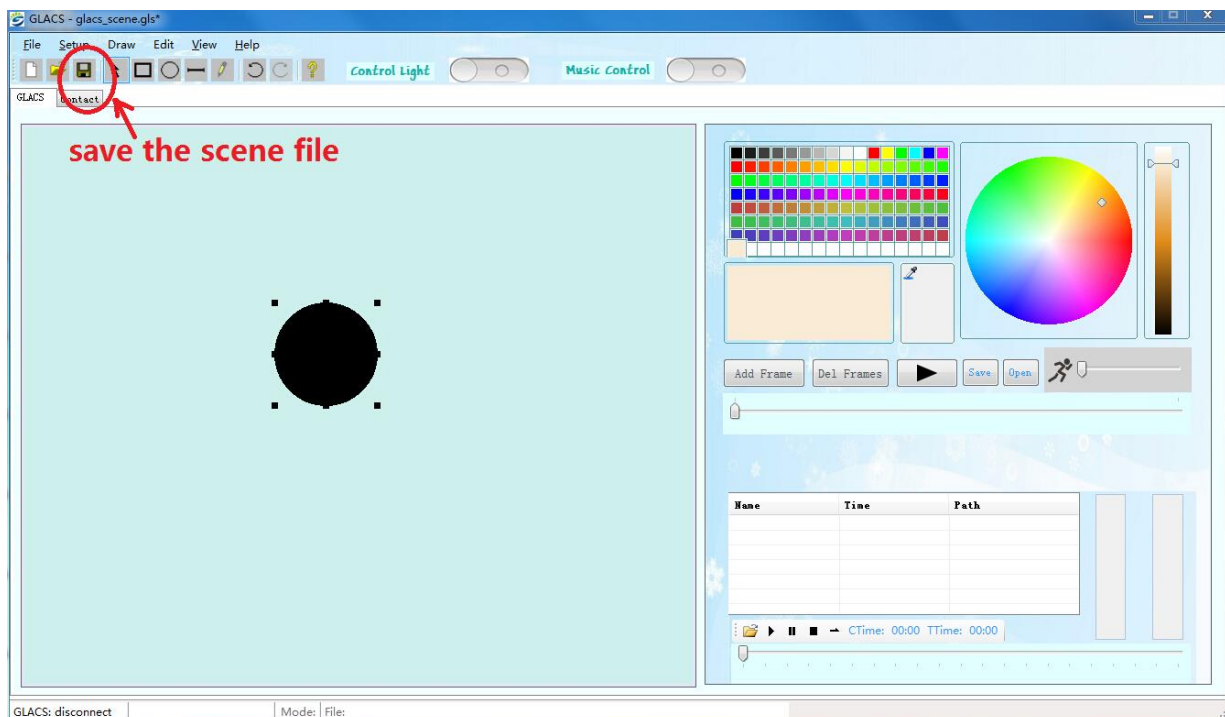
Step 3: Click the button “Connect”, and if everything is OK, a message “Server connected” will be pop up.

3. GLACS PC Control

The software running on PC called "GLACS.exe" provide the most full-function to realize the each part of effect of LED Light Furniture.

3.1. Scene Layout Of LED Furniture

Before controlling LED light Furniture, draw the scene layout with PC APP. For example, there is only one LED Light Furniture to illuminate. Use a simple symbol---a round shape/ a square shape to represent the furniture. In this specs, will use a round shape to illustrate, and one round represents one furniture as below:



This black round is representing the LED light furniture, but until now the light can not be controlled. To control the light, need to set a GLACS Code for this furniture. So, next step will show you how to set the GLACS Code.

Any sence you draw can be saved as a file with the file extension "*.gls", and next time you run the APP, just open the gls file to place scene layout.

3.2. Set up LED Furniture GLACS Code

Each LED Furniture of GLACS system has a GLACS Code. Only the GLACS code is setted, the LED Furniture can be controlled by GLACS controller. This Code can be setted up by PC or Mobile Phone.

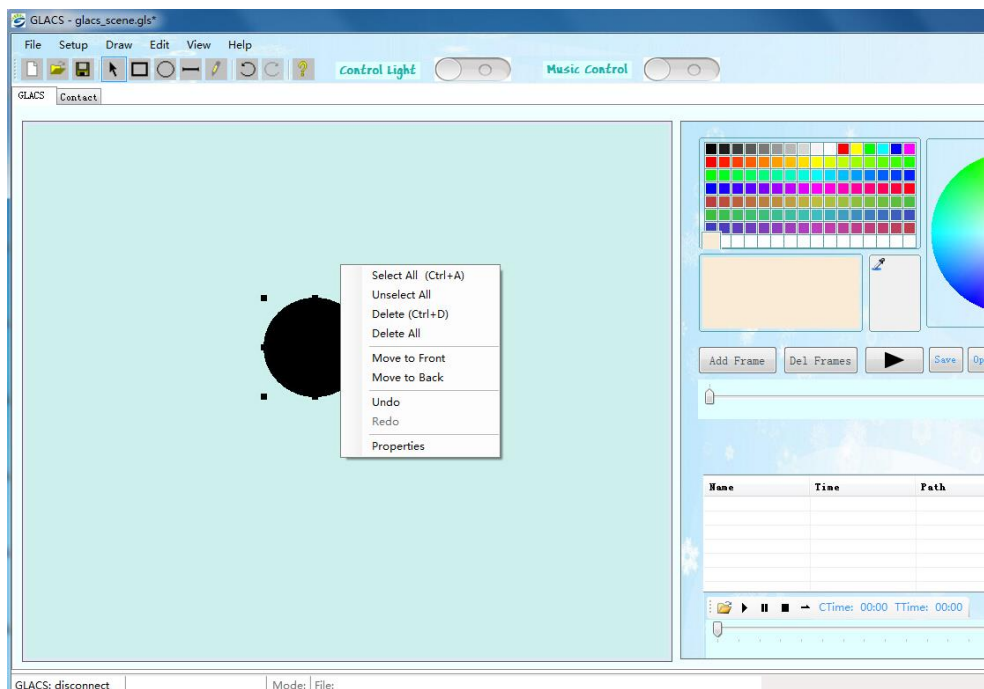
How to set up GLACS Code with PC APP?

Step 1. Let the Light-core get into Coded Mode: Long press the red button on the bottom of Light-core about 6 seconds until the red light flicker. The red light expressed that the Light-core gets into

the Coded Mode.

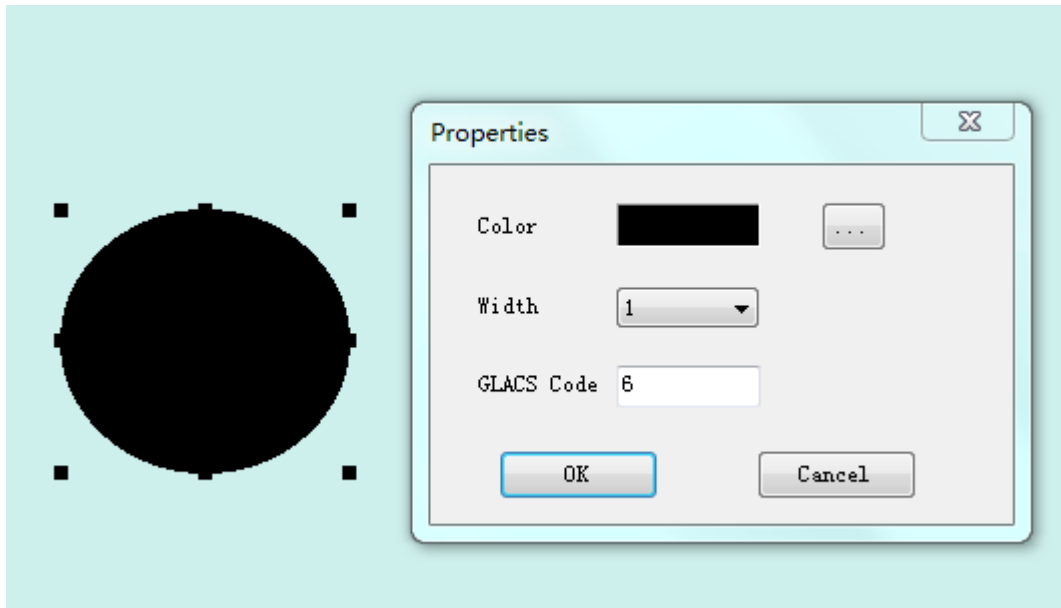


Step 2: Use the PC APP to set the GLACS Code. At the section 3.1, we have introduced the scene layout of LED furniture, then right click the black round, a property menu pop-up, and then click the sub item “properties”.



Step 3: Fill the number whatever you want to set up the GLACS Code in “Properties dialog”. When

operate successful, the Light-core will stop the red light and change to RGB flashing. And this code will be representing this furniture all the time, unless you change it in the future.



How to set up the GLACS Code with Mobile Phone APP?

Step 1: Let the Light-core get into Coded Mode: Long press the red button on the bottom of Light-core about 6 seconds until the red light flicker. The red light expressed that the Light-core gets into the Coded Mode.

Step 2: As above mentioned, find the WIFI hotspot GLACS to connect it and open the mobile phone APP called "GLACS", login the GLACS controller with the server IP "10.10.10.254".

Step 3: Then using the digital dial in this APP, pick the GLACS code and press the button "SET CODE". When operate successful, the Light-core will stop the red light and change to RGB flashing. And this code will be representing this furniture all the time, unless you change it in the future.

3.3. Illuminate LED Furniture with music rhythm

Compared with other manufacturers, GLACS has special capability to synchronous the rhythm of music tone, and there are many rich music render mode to play.

3.3.1. Using MP3 file to Illuminate LED Furniture

As above mentioned, first connect the GLACS controller and set up the scene layout on PC APP (see [section 2.2](#)), after that there are four steps to Illuminate LED Light Furniture with music rhythm:



Step 1: Enable control light: the PC is capability to control the LED Furniture's color with color picker panel.

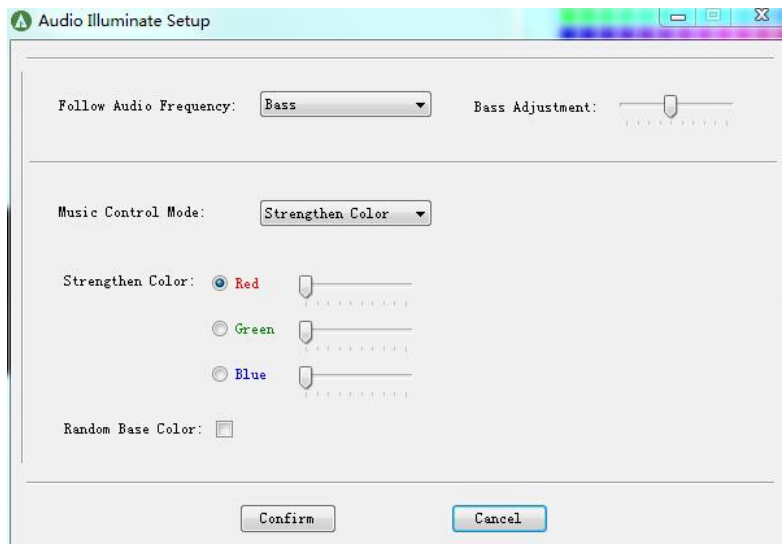
Step 2: Enable Music control: Let the LED Furniture's color synchronous with the music rhythm.

Step 3: Select scene symbol: Choose which Furniture to illuminate.

Step 4: Open MP3 file to play: Play the music and dimming the light with music tune. Click Open to choose any song from your PC.

3.3.2. Audio Illuminate Setup

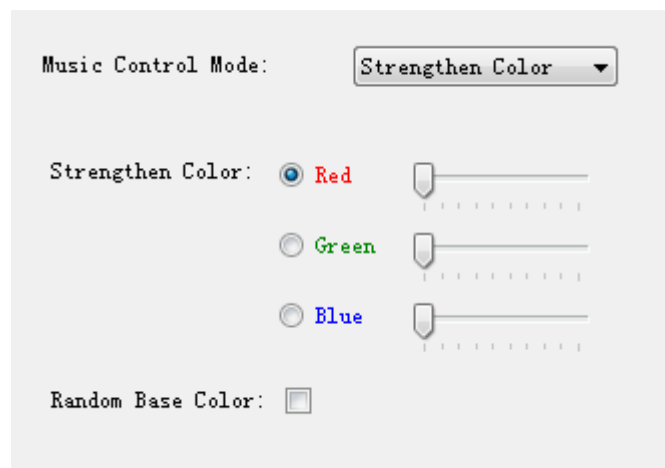
Click the menu "setup", then click the sub menu item "Audio Illuminate Setup", A dialog pop-up to config the Audio Illumination Mode:



Follow Audio Frequency: This option is used to choose bass or high pitch composition of a music song to Illuminate LED light, and even you can adjust the frequency of each composition.

Music Control Mode:

1): Strengthen Color: Following the music rhythm, the color of LED Light Furniture will be strengthened.



2): Strengthen Light: Different intensity songs to different GLACS Code Furniture, the strengthen light is different. has different strengthen light.



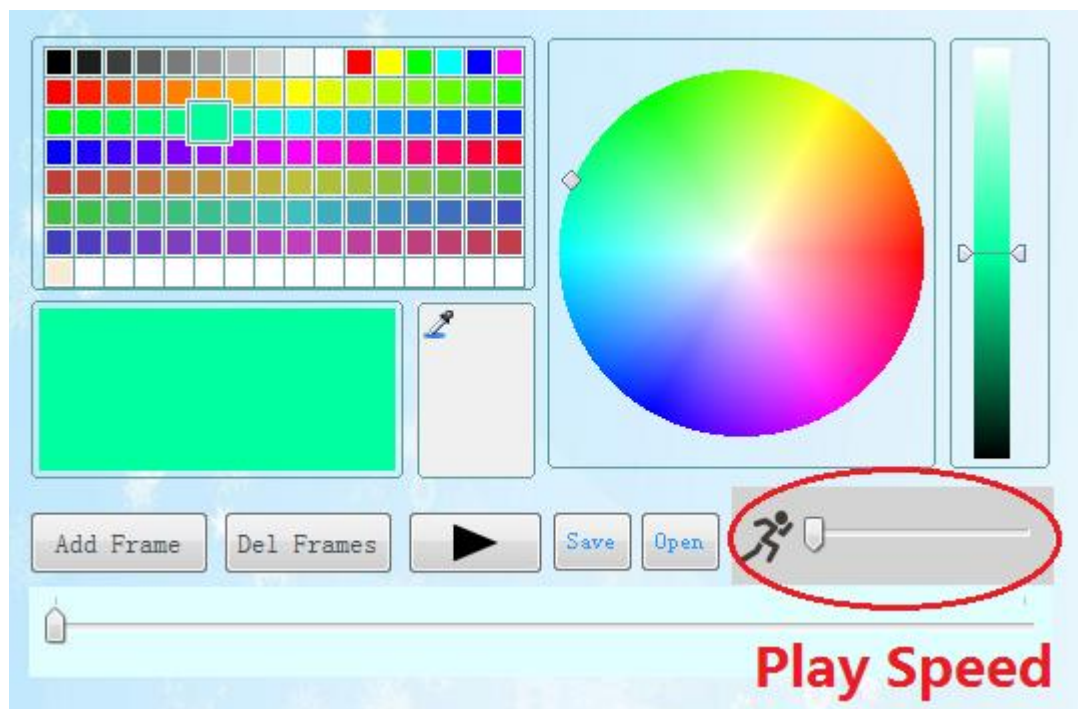
3): Random Illuminate: Each music rhythm will make each furniture light up any one color in the same time.



3.4. Illuminate LED Furniture with DMX Effect

GLACS system supports to illuminate LED Light Furniture with DMX effect, and the DMX effect can be edited by PC APP.

Before configuring the DMX effect, PC APP should first to connect to GLACS controller with IP 10.10.10.254, and trun off the music control.



3.4.1. Add a DMX Frame

Add DMX fram after connected PC APP to GLACS controller and setup the scene layout. After finished DMX frames, the furniture light can be played continuously with different speed.


The DMX frames data can be saved into USB disk,,So next time no need to connect PC, only

put the USB to the GLACS controller, the furniture will show the light as per your last save.

3.4.2. Delete a DMX Frame

Click the button “Del Frames”, all frames will be cleared.

3.4.3. Play DMX Frame

Click the button , the DMX effect will be played in real time, and not only the scene on PCAPP but real LED Light Furniture will be illuminate according to the DMX effect.

3.4.4. Save DMX Frames

Click the button “Save”, the DMX effect data could be saved as a file with the file extension “*.gls”, and the file could be copied to USB disk, and just use this USB device to play DMX effect.

3.4.5. Open DMX Frames

Click the button “Open”, Open the DMX effect data file last save, and click “play” to play this gls file immediately.

3.4.6. Play DMX using USB disk

Copy a “*.gls” file to USB disk, and plug it into GLACS controller, then the controller is ready to play DMX effect according to your instructions.



Accroding to above picture, just press button “-” to play last DMX file (*.gls), and press button “+” to play next DMX file(*.gls).

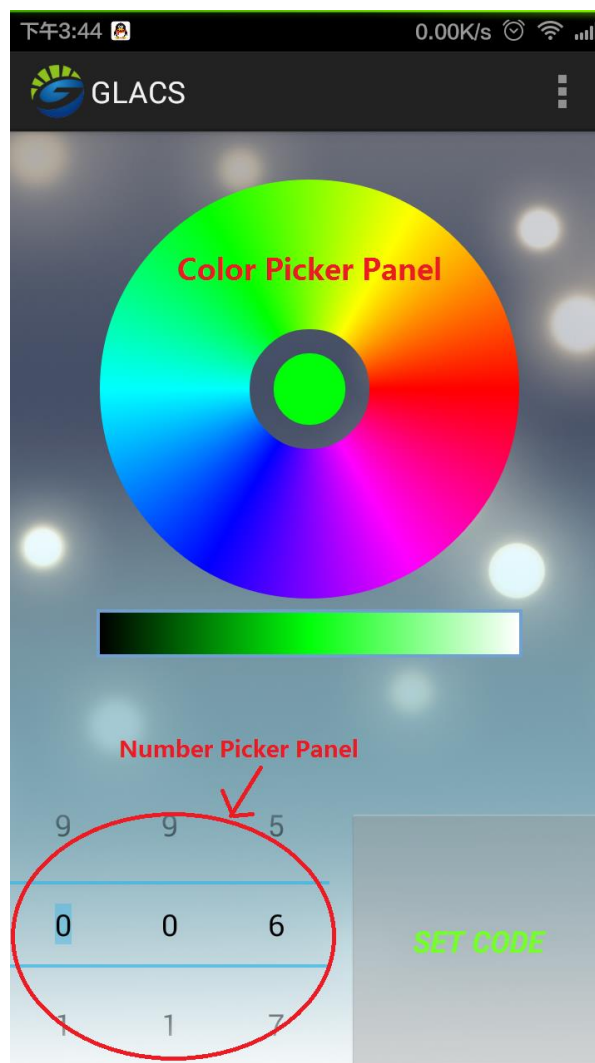
4. GLACS Phone Control

GLACS supports WIFI signal to control all of the LED Furniture or specified only LED furniture by mobile phone.

Before controlling by phone, find the WIFI hotspot and connect to GLACS controller as mentioned above (see [section 2.1.2](#))

4.1. Control single LED Furniture

To control the LED Furniture with mobile phone, just use the number picker panel to pick the GLACS Code of the LED Furniture, which has been setup before, and click the color picker panel, then this furniture will be bright the color as per you chose.



4.2. Control All of LED Furniture in the meantime

If there is any necessary to control all of the LED Furniture in the meantime, just set the number picker to 0-0-0, the color picker's color will apply to all the Furniture. Then, choose any color from the color paicker panel, all furniture will bright that color.

Appendix Abbreviations

Abbreviations	Full Name
GLACS	LINETX Light Advanced Control System
LED	Light Emitting Diode
PC	Personal Computer
USB	Universal Serial BUS
DHCP	Dynamic Host Configuration Protocol
APP	Application
UTP	Unshielded Twisted Pair