



USER MANUAL





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Introduction

Firebee is an APP developed particular for large-scale project such as office building or shopping center where large volume of lighting devices are applied. In such case, planning and management become very important. Firebee provides a plate form to smart lighting administrators and managers to efficiently deploy their plans.

Firebee provides two connection methods: direct connect and remotely control. By the advanced Bluetooth Mesh technology, Firebee supports your mobile to control 1,000 devices simultaneously. With the aid of Gateway, Firebee is able to control up to 6,000 devices via Internet.

Firebee also supports online data backup and restore. This is also important for big project since the setting data is quite complicate and cannot avoid any loss of data damage.

Firebee, as a software itself, also have particular advanced functions in addition to traditional dimming, tunable white, grouping, scene and schedule. This manual introduces the basic setting and some advanced functions for both direct connection and remotely control. Following the instructions of this manual, you can learn how to build up a network in Firebee.

Firebee is free to download from both App Store for iOS mobile device or Google Play for Android mobile device. You can simply download the APP by scanning the QR code here:













Start Firebee

The first page in Firebee APP is the same on every device, simply click "My Network" to start.

The Network in Firebee is a project, you can connect and control up to 1,000 pieces of devices by direct link, or connect and control up to 6,000 devices by applying gateway. Here we introduce firstly how to build up a direct link network.

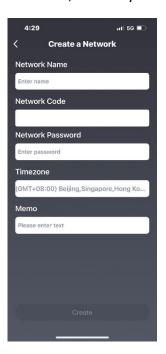
The structure of the network is multi-level design, which helps the manager or administrator to categorize the devices into certain layers. This will provide a clear lighting plan of the project, for the purpose of either management or further expansion.







You can simply receive the existing project setup from another mobile device by clicking "Import Network", or start your own project. Now please click Add Network to start a new project:



Network Name: The name of your project

Network Code: The code as a key index for the devices that could be recognized as part of the project.

Network Password: The password that will be required when you back up or restore the data from the cloud.

Time zone: The time zone of the location where the project stands for. This is important when you set up the schedule.

Memo: In addition to the name, you can write down anything that could help you recognize this project.

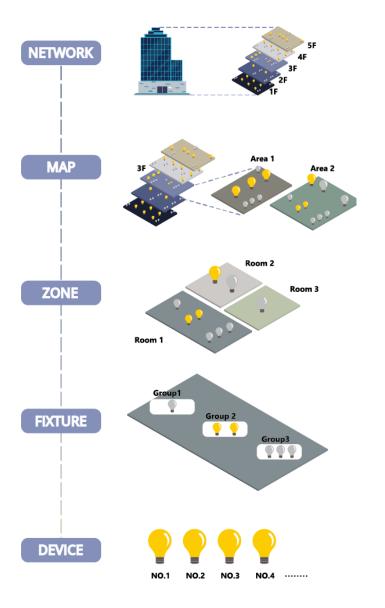
*The Network code and Network password cannot be the same.





After you finish the basic information and press "Create", your new project is built up.

Before the next step, please refer to the following descriptions of the Firebee structure. Please refer to below figure:



This figure shows how to find the corresponding object in Firebee to the real project.

Take the building as an example. Firstly, there are several layers, and each layer could be represented as a map in Firebee.

In each layer, there are several section or area which may have different functions. In Firebee, we use zone to represent these areas.

In each area, perhaps you have several fixtures to control certain amount of devices, Firebee allows you to form a fixture for a group of devices.

The smallest unit in Firebee is the device. It's not necessary to assign devices only in Fixture layer. It could be everywhere in the Firebee system, according to the project in the real world.

The multi-layer system helps the installers to build up the smart lighting network following the real project layout. Let's start to build up our first Map in Firebee.





Create a Map

Enter your new network, and press the button of "+ Click to add a map". Then you will see the information sheet of the new map:







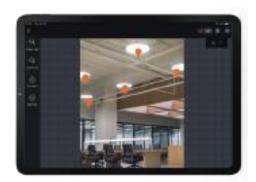
You need to input some basic information:

Name: The name of the map. You can input the exact name of the project such as "5th Floor", "Commercial Layer", etc.

Map Size: There are 3 options, big, middle, and small. The size represents the scale, which depends on the number of devices you want to put in instead of the area in the real world.

Icon: Pick up an icon you prefer to represent this map.

Background Picture: One special feature of Firebee is the Visual-aid Lighting control function. You can download the floor plan drawing or simply a photo from your device, and then put your zone or device on the photo so that their position can be seen clearly as shown in the below photo.







After you name the map and press "New" button, you will see the below image.



*Please note that when you see the mark in Firebee upper right corner, you are in the installation mode or setting mode. You cannot control any device in this mode until you press to save your setting or to disregard the change.

If you want to continue adding new zone, fixture, or device in your map, you need to save the current setting first. Once you save the setting, you can press the small pen to re-enter the setting mode:







Then follow below instructions to start adding devices.







You can now add zone, fixture, or devices now.





Create the Zone

Zone is the smaller area in the Map. You can treat Zone as a sub-map. The process to create a zone is similar to the Map creation. Firstly you enter a MAP, and follow below instructions:







Choose to add zone and you can select the icon:







Click the circle icon to save the setting, and you finish creating a zone.

Adding device procedure is similar to Map, you need to enter setting mode first.











Create the Fixture

Fixture can be located under Map or Zone. The property, however, is a little bit different from Zone and Devices. Firstly please set up the fixture as follows:





The light qty. means the number of light bulbs that will be installed in the Fixture. The Fixture is not necessary to be BLTC smart lighting product, but the light bulb should be.

After you input the name and the light qty., you can then click "New" button to finish setting the fixture.

There are two ways to add devices in the Fixture. The first one is to add devices immediately after you set up a new fixture:



Before you press "New" button to save your setting, click "Add" button, and then APP will enter Add Device interface to start scanning the devices.

After you save the setting of Fixture without adding new devices or you want to renew some devices in the Fixture, you can adopt the second method to add devices from the setting mode:











Add Devices

Once you finish the structural build-up, you can start to add the devices in the setting mode in Map, Zone, or Fixture. Firebee uses Bluetooth Mesh technology while detecting the devices that could be linked. Thought it takes some time to finish the scanning, the scanning result will present all connectable devices, which is particularly useful in a large project.

When you start to "Add" device in Map, Zone, or Fixture, you will see the following



- *There are two sources you can utilize to add the devices:
 - Quick Scan: For the devices not paired by other project, you need to scan for pairing them.
 - Unplaced: For the devices already paired bot not assigned to any Map, Zone, or Fixture, you can reassign them.

Press "Start Scan", Firebee automatically scans the area. During this process, the devices will slowly





flash with the frequency similar to human breathing. Therefore we called this "Breath Mode".

While finishing scanning, you will see the list of all devices that could be added as below. When you press the device icon, the device will flash stronger to help you recognize the device.

Then you can choose the device you want to add in this Map, Zone, or Fixture as follows:







Firebee is able to upgrade the firmware of the device while it detects the necessity. You will see the following notice. Just press "OK" so Firebee will update firmware automatically.









When the devices are added, the system will return to the setting modes and now some devices are in your Map, Zone, or Fixtures.





Setting Mode

Control Mode

In the control mode, you can use Firebee to control your devices, such as dimming, CCT change, scene, schedule, etc. Before we start to control the devices, let's briefly learn how to edit the Devices.

Edit Devices

Please Enter the setting modes, and select any device, you will see 3 more commands appear.











Click "Setting" icon, you will see the basic information page of the device:



Name: The name first shows here is the default name of the device after manufactured. You can rename it to a more memorable one.

Type: This shows the device is one 1-CH (dimming only), 2-CH (dimming and CCT changeable), 3-CH (dimming & RGB color), 4-CH, (dimming, white color & RGB color control), and 5-CH (dimming, CCT changeable, & RGB color control)

Icon: This is the small icon to represent the device on Firebee interface. You can change other icon for your convenience.

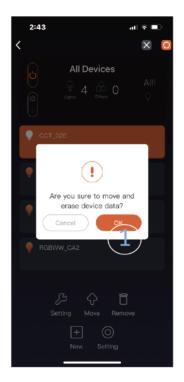
About Device: It shows some properties of the device.

Version: Firmware version

OTA device upgrade: The new version of Firebee usually contains up-to-date firmware. You can use this command to update the firmware of the device.

Remove & Unplaced: These two commands are the same as "Move & Remove" icons.

Click "Move" icon, you can move the device to another Network, Map, Zone, or Fixture.



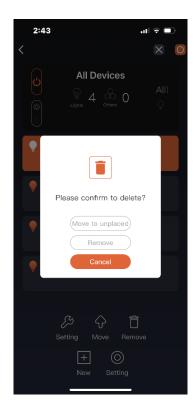


After you move the device, the preset data regarding to this device such as scene, switch, and schedule will then be erased. Remember to check these setting to avoid function failure.





Click "Remove" icon, you will remove the device from the current Map, Zone, or Fixture. Then you can choose "Moved to unplaced area" for future arrangement or "Remove" to delete the device from the network.







Control Devices

Now you can try to control device by Firebee. In smart lighting, there are 4 features to control:

Dimming Level, Tunable White, RGB Color and On/off. The normal control screen is as follows:







- 1-> On/off switch icon of the whole network: In this position, when you press on/off will change the status of all devices in the Map, Zone, or Fixture, depending on the group that devices belong.
- 2 -> Dimming and tunable white icon of the group: The icon means the dimming and tunable function. The bar beside it is the level that you can control on your screen.
- 3->Device Control Area: This area is the device area, with name, on/off icon, dimming bar, and tunable white bar. The arrow on the right is the entry for detailed set-up.
- 4->On/off switch icon of the individual device.
- 5->Dimming and tunable white icon of the group: 2CH and 5CH devices have this bar. You can change the dimming level and CCT directly by swiping your finger on the bar.
- 6-> CCT change Bar (short version)





- 7-> Dimming Bar (detailed version)
- 8-> CCT Bar (detailed version)
- 9-> RGB Control area: RGB color is divided by two factors, color and saturated level. You can also simply choose the color from the color plate.

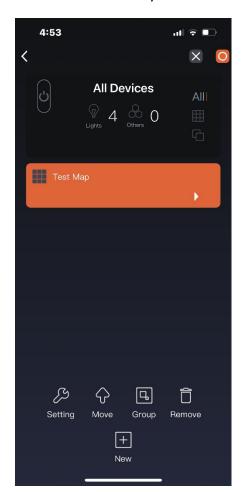
The functions on control area are the most frequently used in smart lighting. It is strongly recommend to be familiar with the operations.

Control the Map / Zone / Fixture

To control Map, Zone, or Fixture is similar to controlling a device. The only difference is that you will control the whole group of devices simultaneously.

Edit the Map / Zone / Fixture

You can rename and see the characteristics of Map, Zone, and Fixture as you do on Device. This can be realized when you enter the setting mode.



The left figure shows the edit page of the Map.

The concepts of setting, Move, and remove is the same as Device.

There is another command Group, which is used while more maps are set and you want to combine several maps in a certain group. This belongs to an advanced functions and will be explained in another topic.





Below is the setting page of the Map and the description of each element:



Name: You can revise the name of the map on this page.

Map Size: There are 3 options, big, middle, and small. The size depends on the number of devices you want to put in instead of the area in the real world.

Icon: There are several icons you can select for recognition. The icon you pick up will be shown on the control screen.

You can assign a picture to this map whether in CAD file or jpg file. You can edit the photo by other software and upload to your device to use it.

PS. When you export the data to another mobile device, the photo would not be transferred. Therefore, the mobile device that receives the setting data needs to insert the same photo again to configure the same.

For a Zone or Fixture, the control interface page follows similar sets as below images:

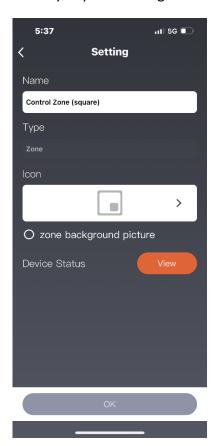








When you press setting command in the Zone page, you will see the following:



Name: You can revise the name of the zone here.

Icon: There are several icons you can select for recognition. The icon you pick up will be shown on the control screen.

In zone setting, the photo upload function is also available.

The Fixture setting page is a little bit different:



Name: You can revise the name of your Fixture here.

Icon: There are several icons you can select for recognition. The icon you pick up will be shown on the control screen.

Light Qty: The number of device you want to control on the fixture. This may not be exactly the same as the number of retrofits that this fixture can hold. For example, you can control 5 devices on a fixture with 6 retrofits and keep the rest one to be control by traditional switch.





Scene & Ani-Scene Setting

Now we start to perform some advanced setting functions. The first is scene. In smart lighting, scene is a combination of devices with different dimming level and colors. You can switch the room atmosphere immediately after pressing the preset scene icon.

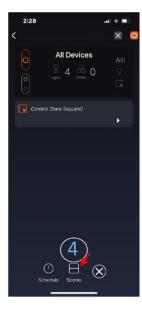
To start set up, first you should enter the edit mode from Map level:







Click "Setting" icon, you will see the following screen:







Let's see how to set up a scene. Press the "Scene" button, you need to decide which devices





should be included in this scene:



The list shows the device under this map, including the zones and fixture. You can choose single device, the whole group, or the subgroup such as the following:







Once you choose the devices and press "Next Step", you can start to set up the dimming level and





color of the device. You can revise the status of 2CH devices by the following:





and 5CH as follows:





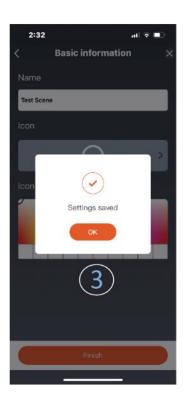




The content in the red circle is the current status of the device. If you don't want to change the status, simply press "Next step" to the final setting. Since setting the device one by one is quite time consuming, you can adjust the device in the control area, and then setup the scene to speed up the process.

Finally, you need to input the name of the scene:





If you go back to see the scene list, you will see there is one scene established. Following the same procedure, we can build up several scenes. These scenes define the status of devices at a particular moment. What if we want the scenes changes along the time?

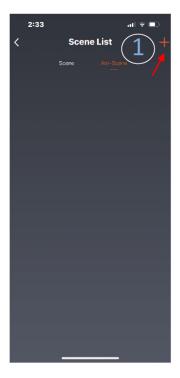
Traditionally, we need to compose a program such as DMX system. In Firebee, however, we provide a platform for you to combine different scenes so that you can perform a lightshow in Firebee system. We call this special function "Ani-Scene".

There are many applications for this particular functions such as Human Centric Lighting, Party Lightshow, Energy Saving Lighting Program, etc.

To set up an Ani-Scene, you need to set up the individual scenes first, and then follow the following steps:





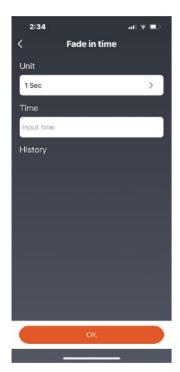


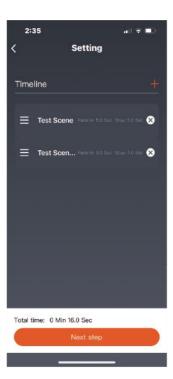




The set-up page is a little-bit complex and need more explanations:







Overrides is an option that Ani-Scene provides. In case you want to make this scene has a lower brightness in Ani-scene but don't want to change the original setting, you can use override to reset



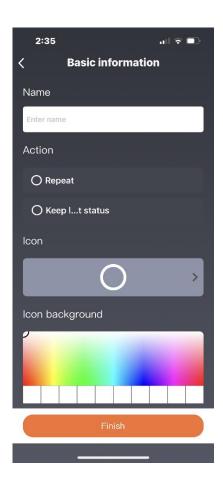


the dimming level of this scene so that this scene will perform differently in the Ani-scene.

As stated previously, Ani-scene is a combination of scenes and time. Therefore, you need to decide the scenes itself and the time that the scene will remain.

There are two types of time: Fade in time is the time between each scene, and Stay time is the time that each scene will hold.

When you finish setting up the scene and its times, press "Add" to save the scene and press "+" to add another. After all scenes are set, press "Next Step" to enter the final step:



Action is the status of the devices you want after the Ani-scene is performed one cycle. Repeat means the Ani-scene will restart from the beginning and keep running. Keep the current status means the devices will stay at the status of last scene in Ani-scene.

Press "Finish" to complete the setting procedure, and now we can learn how to trigger the scene and Ani-scene.





Scene Triggering

Scene is triggered in the control mode of Map:







or from zone:











Quick Switch Setting

In Firebee, quick switch is a similar concept to scene but more static. Quick switch is also a combination of devices with different dimming level and colors, and could be set up and controlled only under zone level. Please refer to the following steps to enter switch set-up page:







After enter the set-up page, the quick switch adding process is exactly the same as scene after you press the "+" sign:







Just remember to save all the changes and then you can trigger quick switch in the control modes.





No matter you are in Map, Zone, or Fixture control page, you can trigger switch simply press "Setting" icon and then "Quick Switch" icon and select the switch from the switch list.

Here is a comparison between scene and switch in Firebee:

	Scene	Quick switch
Setup Mode Level	Under Map	Under Zone
Setup Procedure	Select Device and Adjust	Select Device and Adjust
Control Mode Level	In Map or Zone	All Level
Further Application	Ani-Scene / Schedule	Schedule / Daily Schedule

In Firebee, Quick switch is the main composition instead of scene in BLTC's other APP. Once you know how to set up, we can start to apply another important functions in smart lighting: Schedule.

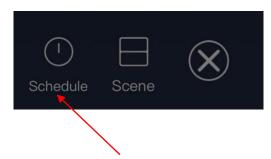
Schedule Setting

Schedule is a preset list of scenes or quick switches. Once being set, the devices will present the scenes or switches automatically.

Schedule can be set up either under map or under zone. In the setting mode, press the "Setting" icon:



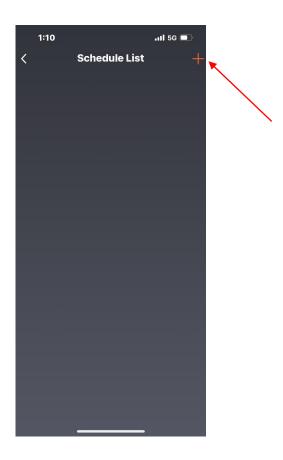
Then "Schedule" icon



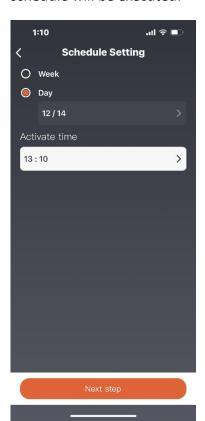




You can enter the schedule setup page as below



Press the "+" sign, you can start to add your first schedule. First you need to decide when your schedule will be executed:



There are several options to set up in the schedule:

Week: If you want the schedule to perform weekly, you can choose this option ad select from Monday to Sunday in the week. The system accept multiple-day choices.

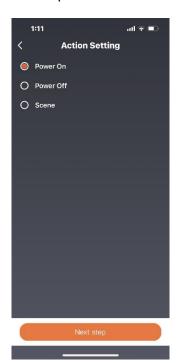
Day: If you want the schedule to be set up on a particular day in the future, you can choose this option and device the date.

Active Time: You can define the time of the day that your schedule initiates.





Once you finish the setup, press "Next Step" button, and you need to assign how your schedule will be performed:



Again, there are 3 actions you need to decide:

Power on: The devices in the Map or Zone, depending on where you create the schedule will be turned on at the time you set up earlier.

Power off: The devices in the Map or Zone, depending on where you create the schedule will be turned off at the time you set up earlier.

Scene: The scene you assigned will be turned on at the time you set up earlier. If you enter the schedule setup under Zone, the command will become "Quick Switch"

Please note that the **Power on/off** will control all devices in the group. When **Power on** is chosen, the devices will be turned on by the status before it was turned off last time. Therefore, if you want the device to be turned on by a certain status, it's better to select scene.

Press "Next Step" to enter the name of the schedule, and press Finish.



Your schedule list will show a new schedule:







Before you save setting, be sure to activate the schedule by the switch shown in above red circle. If you want to deactivate the schedule, you can also change the status here.

Once everything is setup, you can save the schedule permanently. Firebee will send schedule to all devices. The device will automatically run following the saved schedule, even without the control of APP.

If you set up more than one schedule in Map or Zone level. The schedule list will show all the schedules you set up. By activate or deactivate the schedule, actually you can create a daily program that fits your lighting requirement. This is particular useful in places like office, medical center, or occasions where different brightness plays an important role.

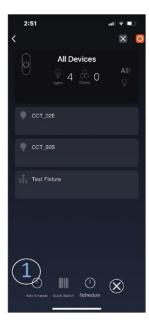
If you think the setup process would be quite complicate, don't worry. Firebee provides a special function for you call "Daily Schedule".





Daily Schedule

Daily schedule is a schedule list for you to combine different quick switches during a day and can be set up **only under Zone level**. Press "**Daily Schedule**" to enter the Daily Schedule screen:





Press "+" to start setting:







You can name the Daily Schedule in the part in the red rectangle. Then you can input Time and





Quick switch. Press "**Add**" button, you can save the setting or start adding another time and quick switch.

When the time and quick switch are set, press "OK" to finish the setting. The new Daily schedule will be added in the list:



You can set up at most 7 Daily Schedule. Then you can distribute these schedule to different days in a week.





Remember you are still in the setting mode, the Daily schedule will be effective only after you save the setting.





Command Table

Here are the description of some icons in Firebee to help you knowing the operation more quickly:

Icon	Description
1	Setting mode: You can enter setting mode by pressing this icon in control mode.
==	Visual-aid mode: You can view your device in zone under background photo.
	List mode: Your map, zone, and device will be arranged in the list mode.
AIII	Show all elements of this Map, Zone, or Devices
	Show Maps of this network only
	Show Groups of this network only
	Show Zones of this Map only
\Diamond	Show Devices only
O	Exit setting mode and save the setting
\searrow	Exit setting mode without saving the setting
	2. Return to beginning without saving the change.
•••	Commands about the account and network

Appendix: Tutorial video

FIREBEE INSTRUCTION: https://youtu.be/cxje09P5VJQ

