# **User Manual**

**NEX Lighting II** 



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## 1. Introduction

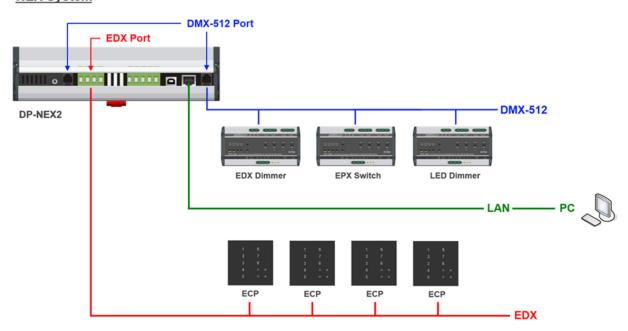
NEX Lighting II is a GUI to manage Lite-Puter's **DP-NEX2**.

## 1-1 NEX System Diagram

A typical NEX system utilizes EDX port to connect to ECP (control panels) and DMX-512 output to control the dimmers. The lighting scenes and data are all stored in the NEX central controller (DP-NEX2).

Figure 1-1: NEX System (DP-NEX2)

### **NEX System**



## 1-2 NEX System

Up to 128 zones can be controlled by NEX central controller (DP-NEX2). In scene edit function, there are 13 scenes (scene 0 to scene 12) can be programmed for each zone. Each channel in a scene can be set from 0% to 100% or "No Control"(NC).

#### CP/Zone:

Each ECP control panel has a zone number (CP number). The zone number determines what zone can be controlled by the control panel. For example, if the zone number of an ECP is 003, the ECP can control zone 003.

#### What is NC

NC means "no control" or "null". By default, the level of DMX-512 signal is between 0 and 100%. In order to divide 512 channels (DMX-512) to be controlled by zones, NEX central controller is capable to assign "NC" to a channel in a scene to make each scene or zone is independent from each other.

For example, there are two ECPs in two different zones, both of them connected to a NEX central controller: If the favorable setting is: one ECP controls channel 1-6 (zone1), the other one controls channel 7-12 (zone2). You can set 7-512 channels as "NC" for all scenes in the first ECP (ECP 01), and set 1-6, 13-512 channels as "NC" for all scenes in the second ECP (ECP 02). Then ECP 01 only controls channel 1-6 (zone 1); ECP 02 only controls channel 7-12 (zone 2) (See Figure 1)

### **SC Mode and SW Mode**

**SC Mode**: Select scene in SC Mode, after the scene is recalled, recalling it again, and then the scene will not be cancelled.

**SW Mod**e: Select scene in SW Mode, after the scene is recalled, recalling it again, and then the scene will be cancelled and the channel controlled by it will be 0.

The scene set in SW Mode can be used as a switch.

Figure 1: ECP 01 controls channel 1 – 6; ECP 02 controls channel 7 – 12.

		Channels													
	Scene	Mode	CH1	CH2	СНЗ	CH4	CH5	СН6	CH7	CH8	СН9	CH10	CH11	CH12	CH 13 - 512
ECP 01 (zone 1)	OFF	SC Mode	0	0	0	0	0	0	NC	NC	NC	NC	NC	NC	NC
	SC1	SC Mode	100	100	100	100	100	100	NC	NC	NC	NC	NC	NC	NC
	SC2	SC Mode	80	80	80	80	80	80	NC	NC	NC	NC	NC	NC	NC
	SC3	SC Mode	60	60	60	60	60	60	NC	NC	NC	NC	NC	NC	NC
	SC4	SC Mode	40	40	40	40	40	40	NC	NC	NC	NC	NC	NC	NC
	SC5	SC Mode	20	20	20	20	20	20	NC	NC	NC	NC	NC	NC	NC
	SC6	SC Mode	10	10	10	10	10	10	NC	NC	NC	NC	NC	NC	NC
ECP 02 (zone 2)	OFF	SC Mode	NC	NC	NC	NC	NC	NC	0	0	0	0	0	0	NC
	SC1	SC Mode	NC	NC	NC	NC	NC	NC	100	100	100	100	100	100	NC
	SC2	SC Mode	NC	NC	NC	NC	NC	NC	80	80	80	80	80	80	NC
	SC3	SC Mode	NC	NC	NC	NC	NC	NC	60	60	60	60	60	60	NC
	SC4	SC Mode	NC	NC	NC	NC	NC	NC	40	40	40	40	40	40	NC
	SC5	SC Mode	NC	NC	NC	NC	NC	NC	20	20	20	20	20	20	NC
	SC6	SC Mode	NC	NC	NC	NC	NC	NC	10	10	10	10	10	10	NC

## 1-3 Exclusive and Independent Scenes

To enhance the flexibilities of scene control, the scenes of NEX central controller in each zone are not necessarily exclusive. The scenes can be independent in a zone if the channels controlled by the scenes are not totally the same.

#### For example, if the scene scenario is set as following figure:

	Scene	Mode	CH1	CH2	СНЗ	CH4	CH5	CH6
ECP 01 (zone 1)	OFF	SC Mode	0	0	0	0	NC	NC
	SC1	SC Mode	100	100	100	100	NC	NC
	SC2	SC Mode	80	80	80	80	NC	NC
	SC3	SC Mode	60	60	60	60	NC	NC
	SC4	SC Mode	40	40	40	40	NC	NC
	SC5	SW Mode	NC	NC	NC	NC	100	NC
	SC6	SW Mode	NC	NC	NC	NC	NC	100

Scene 1 – scene 4 and scene off are exclusive among each other because all of these scenes control channel 1 – channel 4. If scene 1 is recalled first then scene 4 is recalled later, the previous one scene status (e.g. indicator of scene 1 on ECP) will be cancelled.



#### Illustrate exclusive scenes by a typical ECP panel.



Scene 1 is recalled. The LED indicator of scene 1 is on.



Scene 4 is recalled. The LED indicator of scene 1 is cancelled.

Scene 5 is an independent scene in this scenario because it only controls channel 5, which is not controlled by any other scene in this zone.

If you recall scene 1 and then recall scene 5 by ECP panel, you can see the backlight of scene 1 and scene 5 indicators on ECP are both illuminated.

### Illustrate independent scenes by a typical ECP panel.



Scene 1 is recalled. The LED indicator of scene 1 is on.



Scene 5 is recalled. The LED indicator of scene 1 and scene 5 are both on.

(Select SC 5 in SW Mode, recalling it again, and then the indicator of SC 5 will be off and the channel 5 will be 0.) Similarly, Scene 6 is an independent scene as well because it controls channel 6, which is not controlled by any other scene in this zone.

## 2. Network Setup

Make sure that the NEX central controller (DP-NEX2) is connectable in the local network area (LAN).

NEX central controllers do not have the feature of DHCP. Therefore, the IP address of DP-NEX2 has to be manually set.

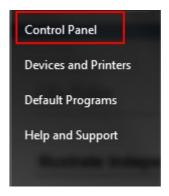
For example, if the IP address of your local PC is 192.168.0.10, you probably can set the IP address of NEX central controller as 192.168.0.X. Make sure that the manually set IP doesn't conflict with other devices in the network.

If you don't know how to set up the network or there is no networking environment, please check the following instruction to manually set the IP address of the PC to make the PC able to connect to the NEX central controller (please note that doing this will make your PC lose Internet connectivity)

Assume that IP address of the NEX central controller is 192.168.3.234, and the operation system is Windows 7.

STEP-1: Connect the PC to the NEX central controller with a network (RJ-45) cable directly.

Click "Start" and then click "Control Panel"



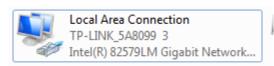
STEP-2: Click "Network and Sharing"



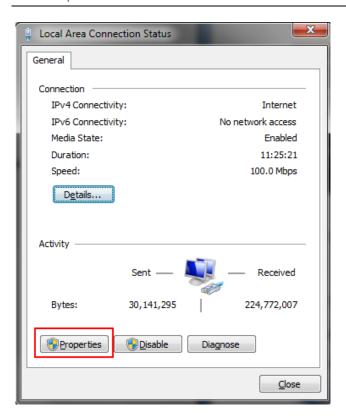
STEP-3: Click "Change adaptor settings"

Change adapter settings

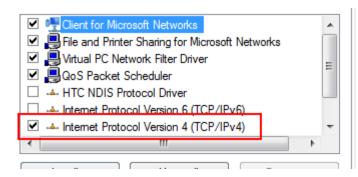
STEP-4: Double click the network adaptor



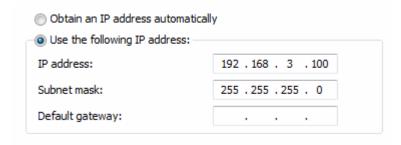
STEP-5: Click "Properties"



STEP-6: Double click "Internet Protocol Version 4(TCP/IP V4)"



STEP-7: Manually set IP address as 192.168.3.100. Sub mask as 255.255.255.0.



STEP-8: Click "OK" to save the setting. Now the NEX central controller (IP address is 192.168.3.234) should be connectable.

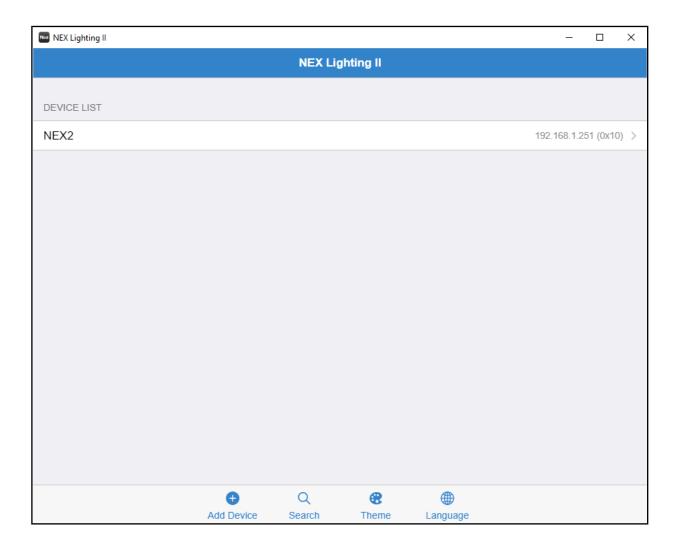
## 3. Setup and Installation

Double click "NEX Lighting II-A.01.exe" and follow the instructions to install the application

The application can be run in start menu:

## 4. Basic GUI Operation

## 4-1 Main Screen



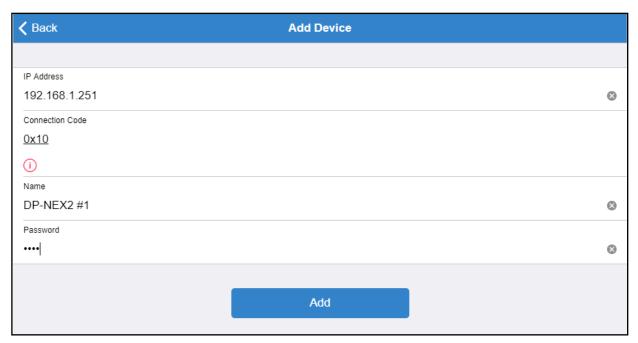


## 4-2 Add Device

In main screen, click "Add Device" button



Enter DP-NEX2's IP, name, password and then click "Add" to add the device.



You will see the added DP-NEX2 in the Device List on main screen.

## **4-3 Search Device**

In main screen, click "Search" button

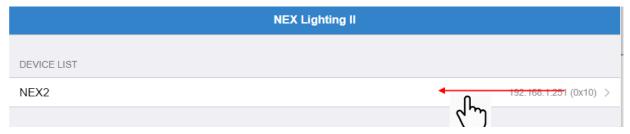


All DP-NEX2 in the local network area will be listed. You can click the IP item to add it to the device list.



## 4-4 Edit/Delete Device

In Device List Page, swipe the device item to left:



#### Edit and Delete buttons show



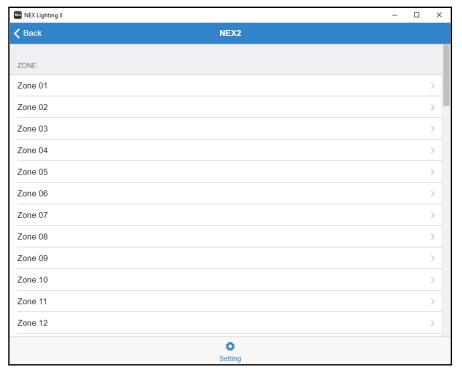
Click "Edit" button to edit the device or click "Delete" to delete the device in the list.

## 4-5 Connecting to DP-NEX2

After adding the DP-NEX2 to the list, you can click it on main screen to connect to it:



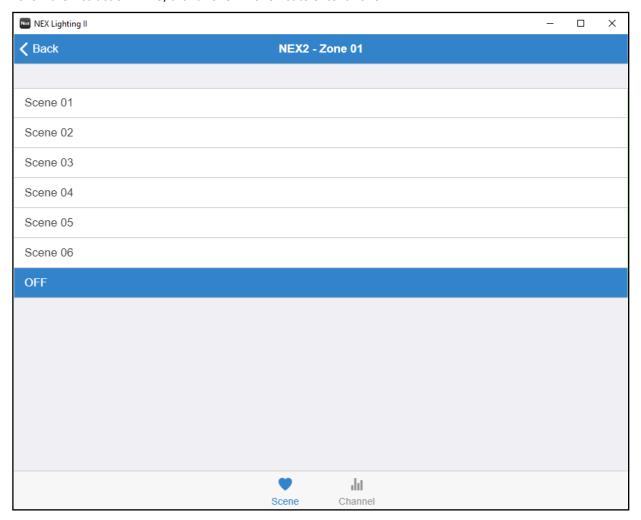
If the IP address and password are correct, it will redirect to Zone List Page:





## 5 Scene/Channel

Follow the instruction in 4-5, click a zone in Zone List to enter a zone:



Click Scene/Channel tab to switch between Scene Page and Channel Page:

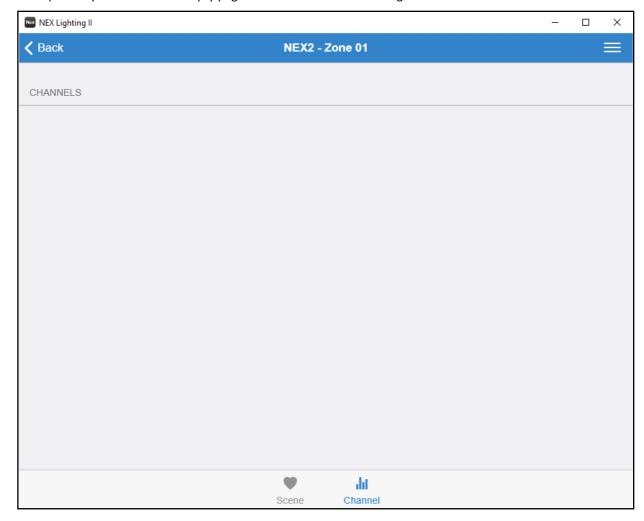


## 5-1 Add Channels to Zone

You must first add channels to a zone to make DP-NEX2 able to control other DMX-512 devices.

Follow the instruction in 4-5, click "Channel" to enter Channel Page in zone 01:

You'll probably find that it is a empty page. There are no channels being added in zone 01.



Click the menu icon on upper-right corner:



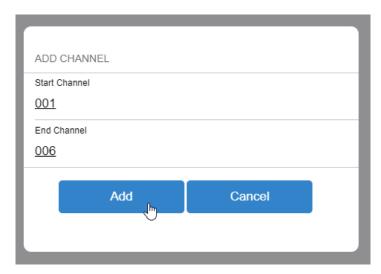


#### Click "Add Channel"

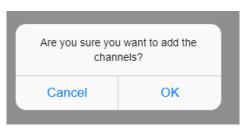


Select the range of DMX-512 channels that you want to control in this zone:

For example, if you want zone 01 is able control DMX-512 channel 1 – 6, select 01 as Start Channel and select 06 as End Channel. And the click "Add".

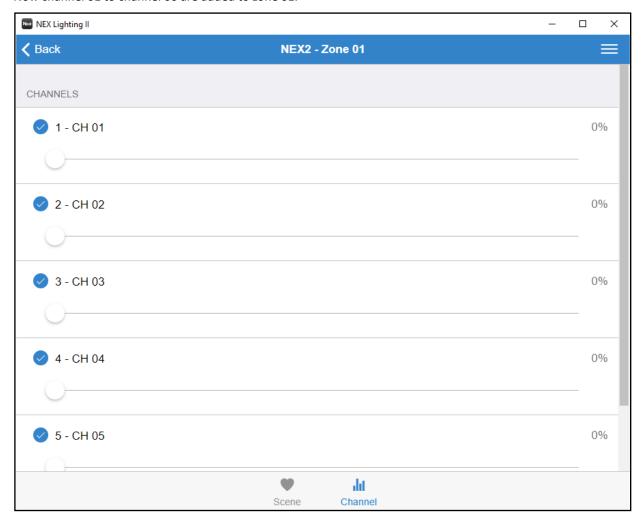


#### Click "OK" to confirm:





Now channel 01 to channel 06 are added to zone 01.



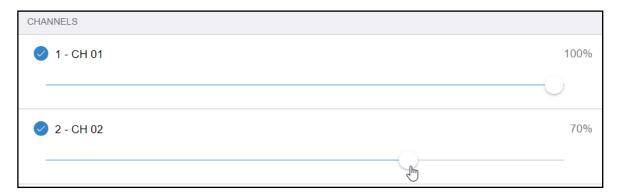
You can also remove the channel from the zone by clicking "Removing Channels" in the menu.





### 5-2 Set Channel Level

Follow the instruction in 5-1, you can drag the slider to change the level of the channel:

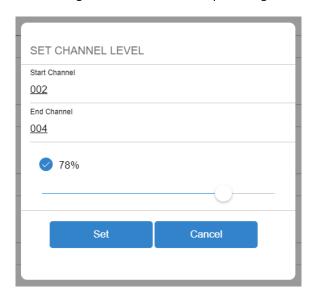


To set level for a continuous channels, click menu icon on upper-right corner and click "Set Channel Level"





Select a range of channel and a level percentage and then click "Set".





### 5-3 Save Scene

Follow the instruction in 5-2 to set the channel levels.

It is possible to store the channel levels to a scene.

If we want to save

Channel 01 = 100%

Channel 02 = 100%

Channel 03 = 100%

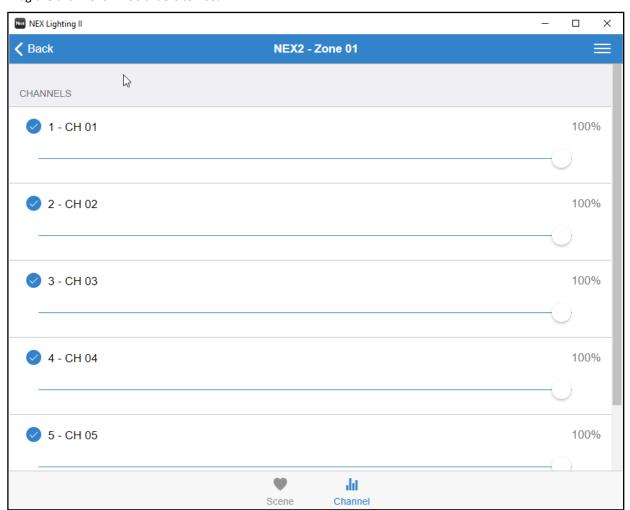
Channel 04 = 100%

Channel 05 = 100%

Channel 06 = 100%

to Scene 1 in Zone 1.

Drag the channel 01 – 06 sliders to 100%:





#### Click menu icon:



#### Click "Save to Scene"



#### Select "Scene 01" and then click "Save".



After saving the scene, it is able to recall the scene in Scene Page.

#### 5-3-1 Example: Exclusive Scene

#### Please refer 1-3 about exclusive and independent scenes:

Set scene 1  $^{\sim}$  6 and scene off in zone 1 as exclusive scenes:

Scene 001: CH 1 – CH4: 100%; fade: 3 seconds

Scene 002: CH 1 - CH4: 90%; fade: 3 seconds

Scene 003: CH 1 - CH4: 80%; fade: 3 seconds

Scene 004: CH 1 - CH4: 70%; fade: 3 seconds

Scene 005: CH 1 – CH4: 60%; fade: 3 seconds

Scene 006: CH 1 – CH4: 50%; fade: 3 seconds

Scene OFF: CH 1 - CH4: 00%; fade: 3 seconds

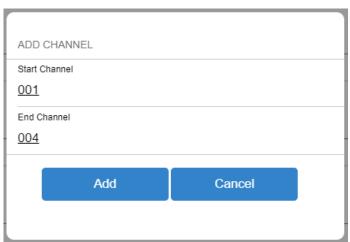
STEP-1: Go to scene page in zone 1, click menu icon



Click "Add Channel"

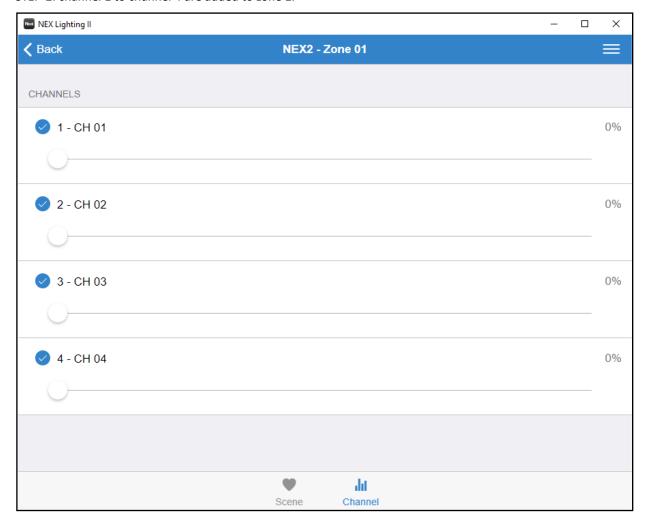


Set start channel as 01 and end channel as 04 and then click "Add"





STEP-2: channel 1 to channel 4 are added to zone 1.

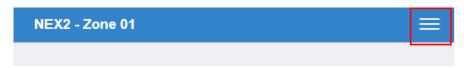


#### STEP-3: Set channel 01 to channel 04's level to 100%





STEP-4: Click menu icon and click "Save to Scene"





STEP-5: Select scene 01, fade 03S, scene mode and click "Save"



STEP-6: follow STEP-3 to STEP-5 to set the rest scenes.

#### 5-3-2 Example: Independent Scene

Please refer 1-3 about exclusive and independent scenes:

Set scene 1 ~ 4 and off as exclusive scenes; scene 5 and scene 6 as independent scenes.

Scene OFF: CH 1 - CH4: 00% (SC Mode); fade = 3 seconds

Scene 001: CH 1 – CH4: 100% (SC Mode); fade = 3 seconds

Scene 002: CH 1 - CH4: 90% (SC Mode); fade = 3 seconds

Scene 003: CH 1 – CH4: 80% (SC Mode); fade = 3 seconds

Scene 004: CH 1 – CH4: 70% (SC Mode); fade = 3 seconds

Scene 005: CH5: 100% (SW Mode); fade = 3 seconds

Scene 006: CH6: 100% (SW Mode); fade = 3 seconds

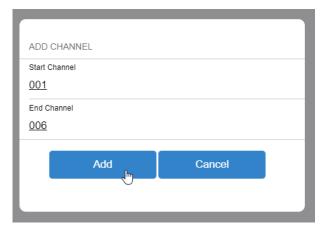
STEP-1: Go to scene page in zone 1, click menu icon



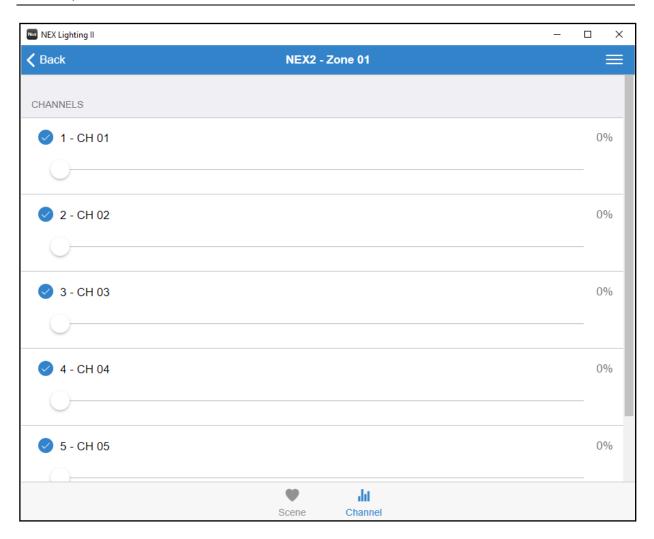
Click "Add Channel"



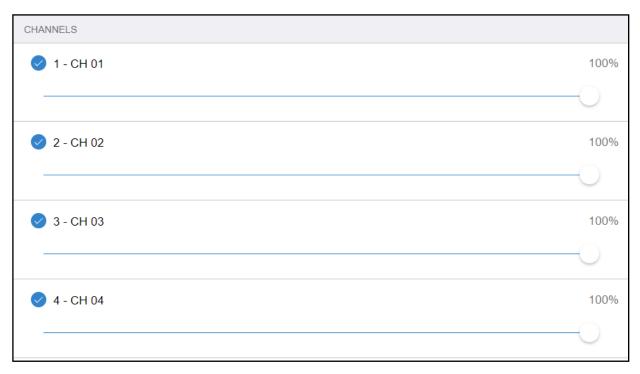
Set start channel as 01 and end channel as 06 and then click "Add"



Channel 01 – 06 are added to zone 1:



#### STEP-2: Set channel 01 to channel 04 to 100%

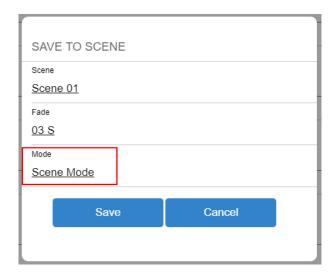




STEP-3: Uncheck channel 05 and channel 06 (to make channel 05 and 06 to NC)



STEP-4: Select scene 01, fade 03S, scene mode and click "Save"



STEP-5: follow STEP-2 to STEP-4 to set scene 02- scene 04 and scene OFF.

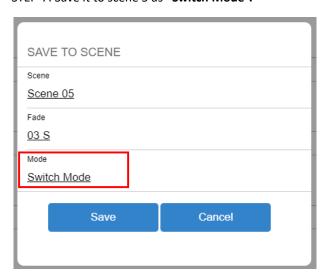


STEP-6: Uncheck channel 01 -04 and channel 06, making them to NC.

Check only channel 05 and set its level to 100%.



STEP-7: Save it to scene 5 as "Switch Mode".



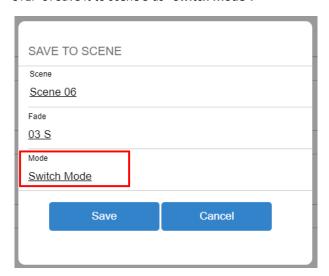


STEP-8: Uncheck channel 01 -05, making them to NC.

Check only channel 06 and set its level to 100%.



STEP-9: Save it to scene 5 as "Switch Mode".



## 5-4 Recall Scene

After scene is saved, you can go to scene page to recall scene.

Scene 01	
Scene 02	
Scene 03	
Scene 04	
Scene 05	
Scene 06	
OFF	



## 6 Timer

There are two kinds of timers:

- 1. Calendar Timer: run based specific clock time in a day.
- 2. Astronomical Timer: run based on sunrise/sunset time. For example, sunrise time might be 05:00 in summer time; but sunrise time might be 07:00 in winter time. With astronomical timer, you can run specific scene exactly at the time when sun is rising (05:00 in summer; 07:00 in winter)

## 6-1 Timer ON/OFF

Please make sure that the timer is **enabled**, otherwise the timer will not be triggered at all.

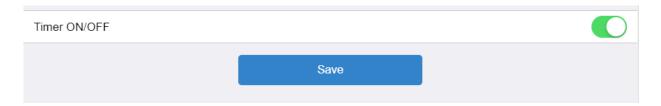
Connect to DP-NEX2 and click "Setting" in zone list page.



Click "Timer ON/OFF"



Turn on the toggle button and then click "Save".



## 6-2 Calendar Timer

There are some parameters can be set in calendar timer.

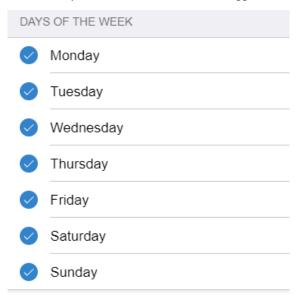
### Start/End Date

The range of date on which the timer will be triggered.



## Days of the week

The weekday on which the timer will be triggered.



### Time

Time: 24hr clock on which the timer will be triggered.

Time
08:00

## Zone/Scene/Fade

What scene will be recalled when the timer is triggered:

Zone			
<u>01</u>			
Scene			
<u>01</u>			
Fade			
<u>0.1 S</u>			



### 6-2-1 Add a Timer

Connect to DP-NEX2 and click "Setting" in zone list page.



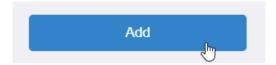
Click "Calendar Timer"



Click "Add" to add a timer

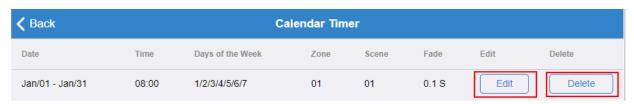


Set the parameters of the timer and then click "Add" to add the timer.



## 6-2-2 Edit/Delete Timer

In calendar timer list, click "Edit" or "Delete" to edit or delete the timer.





## **6-3 Astronomical Timer**

To use astronomical timer (astro timer), it is required to calculate a whole year sunrise/sunset time of a location.

#### 6-3-1 Set Astronomical Clock

STEP-1: Connect to DP-NEX2 and click "Setting" in zone list page.



STEP-2: Click "Astro Timer" and then click "Setting"

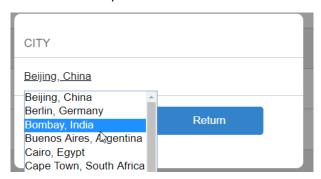




STEP-3: Click "Load Lat/Lon by City"

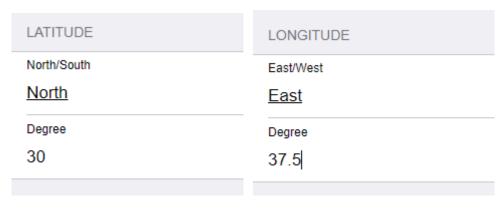


Select a nearest city





Or enter longitude and latitude by yourself:



Click "Save"



STEP-4: Back to astro timer list, a sunrise/sunset data of current day will be shown. It means the sunrise/sunset data are correctly stored.





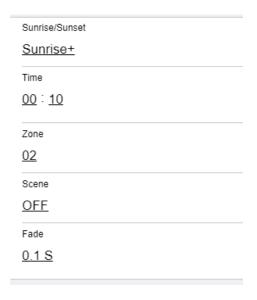
#### 6-3-2 Add a Astro Timer

For example, we want to set a timer to recall zone 2 scene OFF 10 minutes after sun rises.

STEP-1: In astro timer list page, click "Add"



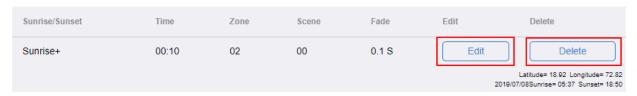
STEP-2: set the timer parameters as the following screenshot:



STEP-3: Click "Add" to add the timer.

### 6-3-2 Edit/Delete Astro Timer

In astro timer list, click "Edit" or "Delete" to edit or delete the timer.



## **7 Other Configurations**

## 7-0 Edit Display Names

#### 7-0-1 Zone Name

In Zone List Page, swipe the zone item to left,



#### "Edit Zone Name" button shows



#### Click it to edit zone name



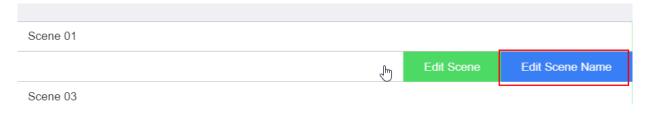


### 7-0-2 Scene Name

In Scene Page, swipe the scene item to left:



#### "Edit Scene Name" button shows



Click it to edit Scene Name



### 7-0-3 Channel Name

In Channel Page, click "menu" icon.



#### Click "Edit Channel Name"



## All channel being added to the zone shows:



#### Click the channel item to edit the name:



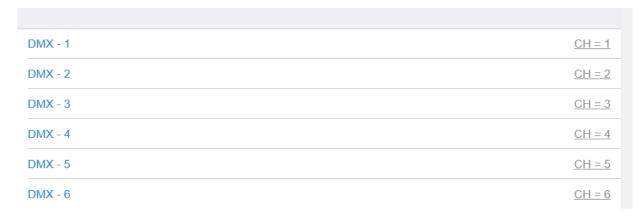


## 7-1 DMX-512 Patch

#### Click "DMX Patch" in the menu



### The DMX-512 patch table will be shown:



#### Click the DMX channel which you want to patch:



Set the preferred value and then click OK.

## 7-2 Sync Clock

Click "Sync Clock" in the menu to synchronize the PC's clock to DP-NEX2's clock.



## 7-3 Sequence Setting

A sequence is a series of scene.

A DP-NEX2 is able to run a sequence (show) at the same time.

#### 7-3-1 Sequence Patch

Sequence patch is a trigger to recall or stop the sequence.

If the sequence is patch to zone 99, scene 1, it means the sequence will be triggered by scene 1 in zone 99.

#### 7-3-2 Sequence Mode

The sequence has two modes:

- a. **Cancel to stop**: By pressing patched sequence button again to cancel the sequence, the channels controlled by the sequence will be stopped (keep the same as you cancel the sequence)
- b. **Cancel to zero**: By pressing patched sequence button again to cancel the sequence, the channels controlled by the sequence will be all 0%. (when you cancel the sequence, all lights controlled by the sequence are turned off)

"Cancel to stop" is desirable if you mix general lighting scenes with the sequence.

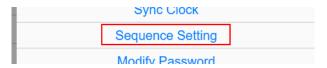
"Cancel to zero" is desirable if the sequence is just for decorative RGB changing lights. In this kind of projects, when you cancel the sequence, you'd want to make all channels controlled by the sequence to zero.

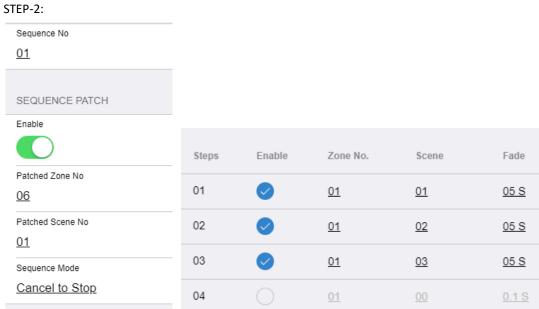
#### 7-3-3 Example

Set a sequence with 3 steps (scene 1, scene 2, scene 3) and patch it to scene 6 in zone 1.

The fade time of each step is 5 second.

STEP-1: Click "Sequence Setting" in the menu





STEP-3: Click "Save"

This sequence can be recalled by zone 6 scene 1.

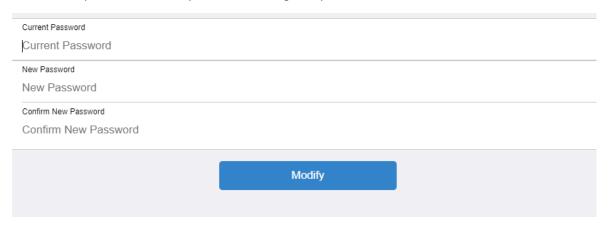


## 7-4 Modify Password

### Click "Modify Password" in the menu:



### Enter current password and new password to change the password

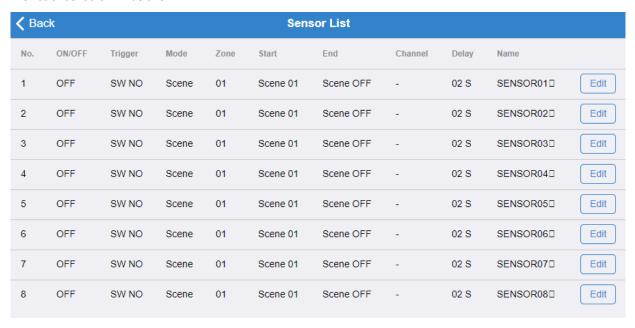


## 7-5 Sensor Setting

Click "Sensor Setting" in the menu:

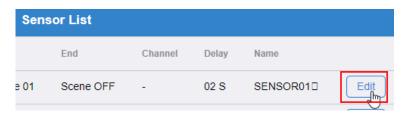


The list of sensors will be shown:



Please refer the manual of the hardware for the definition of trigger types

To change the setting, click "Edit" button on corresponding sensor item:





#### Example: Recalling a scene by input module

Configure S07 as "SW NO" to recall a scene 1 (start scene) and scene 4 (end scene) in zone 2.

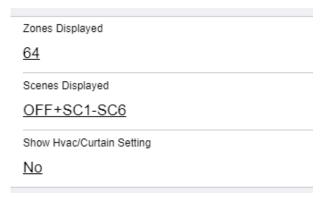


## 7-6 Display Setting

Click "Display Setting" in the menu:



You can change some display parameters here:





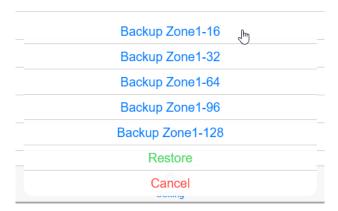
## 7-7 Backup/Restore

#### 7-7-1 Backup

Click "Backup/Restore" in the menu:



Select how many zones you want to backup (the more zones, the more time will it takes).



Once backup is done, it will prompt to save a backup file. Please save it and keep it well.

#### 7-7-2 Restore

To restore data, select "Restore" in "Backup/Restore"



Select the backup file to restore it.

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**Limited Warranty** 

1. Lite-Puter is only responsible for the product itself.

2. Lite-Puter warrants to repair any manufacturing defects within one year of distribution date.

3. Lite-Puter does not offer on-site service. Should a defect appear in Lite-Puter's product, please deliver the

product to local distributors or Taiwan Headquarters.

4. This Limited Warranty does not cover:

a. Any fault caused by false usage or imprudence (collision, inadequate installation or adjustment, insufficient

ventilation, or improper repairs)

b. Force majeure factors (flooding, earthquake, volcanic eruption, or other factors beyond Lite-Puter's control).

c. Labor costs incurred in diagnosis of defects; installation, reinstallation, wiring, rewiring, repairing, adjustment,

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