

# **DALI programming**

## **User Manual V2. 4**

## Revision history

Revision	Changes	Author	Date
V1.0.4	Add function Save& Load profile	David.Zhou	2020/12/03
V1.0.5	Delete OTP recovery point	David.Zhou	2021/03/22
V1.0.6	Add current programming read and LED OTP read functions. Change the default OTP trigger point from 120°C to 100°C.	David.Zhou	2021/06/08
V1.9	1.Add compatibility for EUCO-1K0140GLA 2. Modify the version format of GUI	David.Zhou	2021/09/13
V2.0	1.Update current programming set up.	David.Zhou	2022/02/18
V2.4	1.Update firmware update process	David.Zhou	2022/07/25

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## I. Connect the device

Before launching the DALI programming software, make sure the programmer is connected to the USB port of your computer. Then, connect the programmer to the LED driver via the DALI cable (The DALI interface is polarity insensitive). After all of this, connect the driver to AC input, and power on the driver. The connection is described in the following figure.

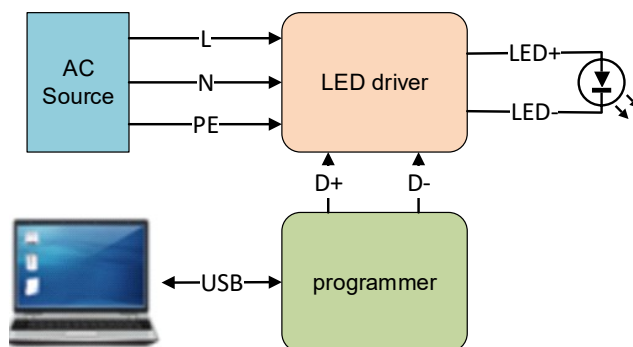


Figure 1. The connection of the DALI programming tool



Figure 2. The picture of the DALI programming tool

**Note:** Before running all the following functions, please make sure the driver is powered on. When the USB is connected to the computer, it may take a few minutes to install a driver automatically. Please wait patiently for the installation to finish.

## II. Open DALI programming software

Double click “**DALI\_Tool\_For\_EUCO-1Kx140GLA.exe**” to start the software.

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Figure 3 Open DALI programming software

### III. Program the output current

**Step 1:** The GUI interface of DALI programming tool is shown in the following figure. Firstly, after opening the software, make sure the status light becomes green which means that the DALI programming tool has been connected successfully. Otherwise, follow step “I-Connect the device” to check the USB cable and DALI bus.

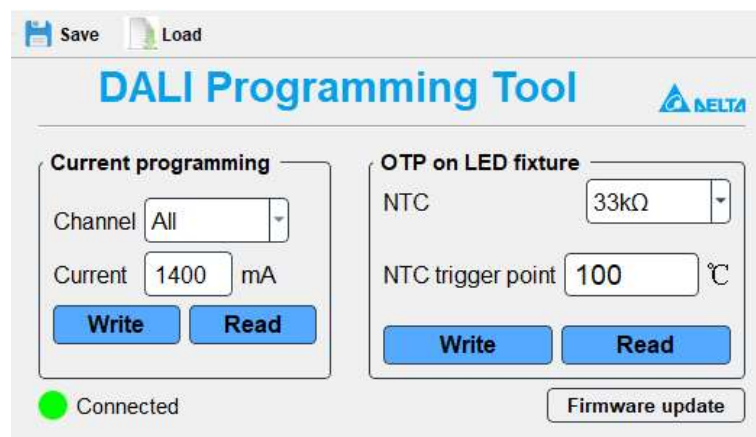


Figure 4 the software of DALI programming tool

**Step 2:** There are four items of current channel you can choose as shown below:

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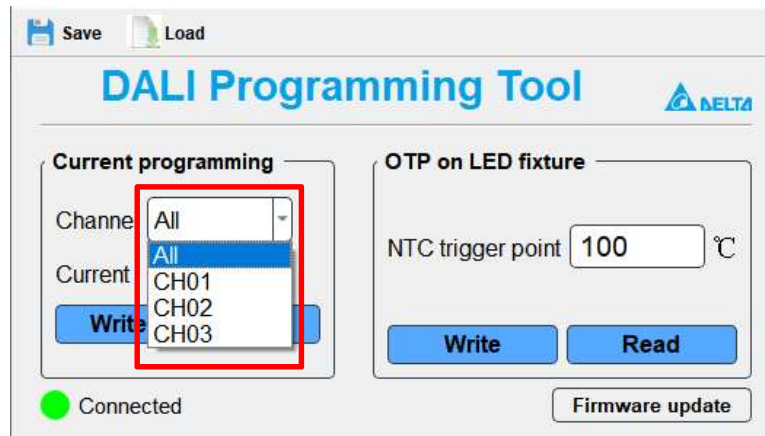


Figure 5. Choose current channel

If you select the item “**All**”, it means that you would program the current of all three channels at once. But the channel, “CH01”, “CH02” and “CH03” (only for EUCO-1K5GLAx), would only program the corresponding channel ‘s current.

**Step 3:** After choosing the programming channel, the current value of that channel also need to be set. The default value for each channel is 1400mA as show in the figure. You could set the current value from 500mA to 1400mA.

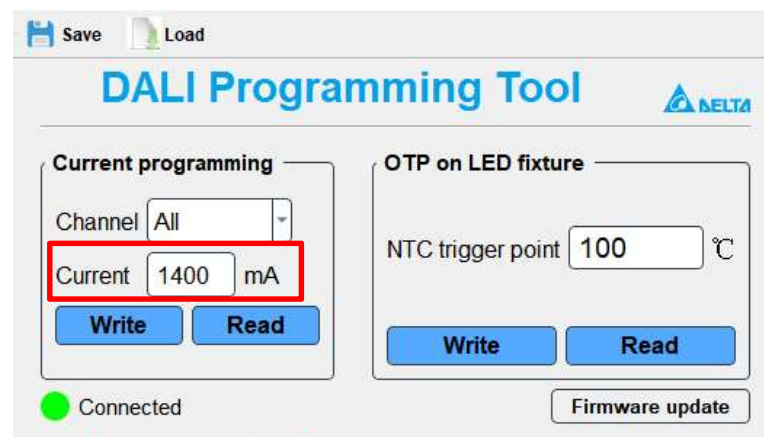


Figure 6. Set current value

**Step 4:** If the programming parameters have been set completely, click “**Write**” button. Then the driver would light-off and light-on automatically. And the status message at the bottom will show “**Current programming completely**”.

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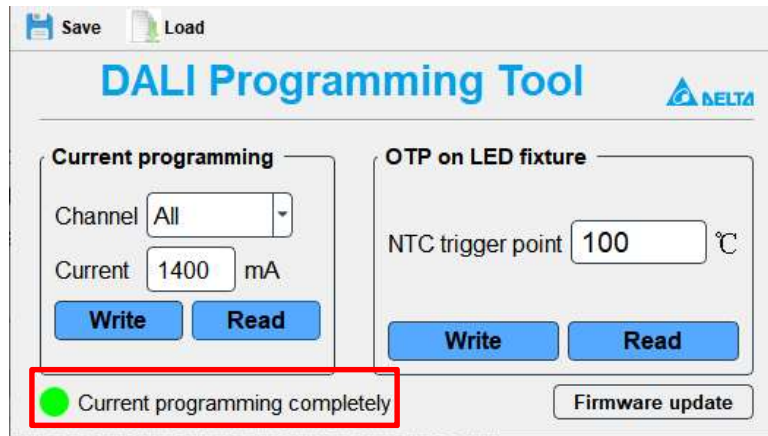


Figure 7. Current program completely

**Step 5:** After programming the current, the customer could read the programming result to check if the output current programming action is right. Click “ **Read** ” button to read the actual output current.

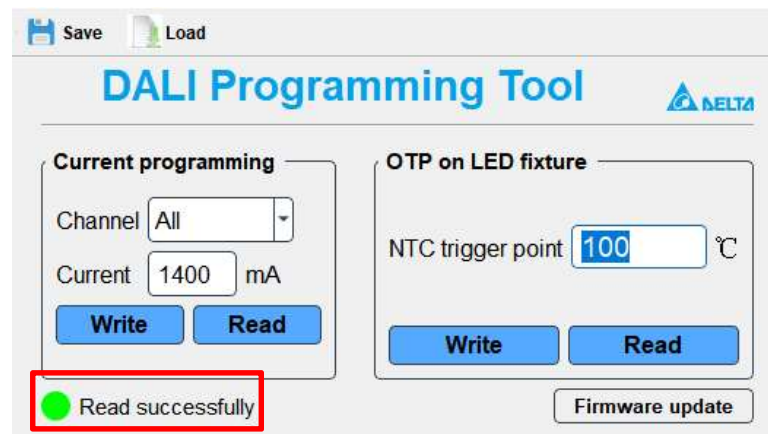


Figure 8. Read current programming value

#### IV. Set and read LED OTP parameters

The driver has integrated the OTP protection function. But this function needs the LED fixture with a 100K NTC register to sensor the temperature. For the OTP protection, there are one parameters that you may want to set: the NTC trigger point.

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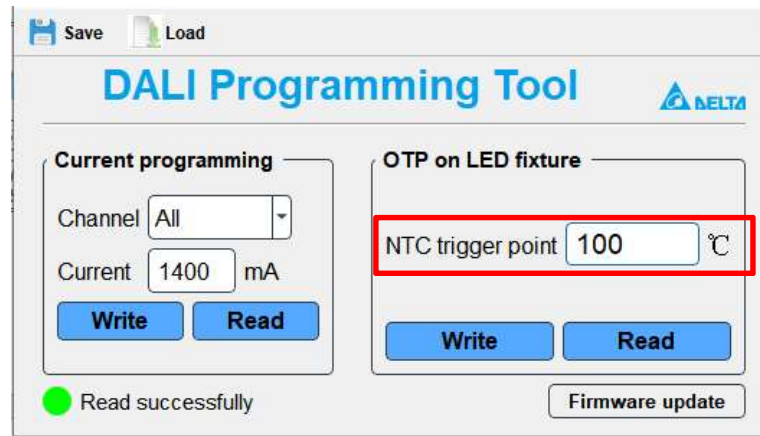


Figure 9. Set OTP parameters

When the LED's temperature has exceeded NTC trigger point, it would start OTP protection process. Please refer to the driver's data sheet for full details of OTP protection.

Setting OTP parameters is simple. Firstly, set the value of trigger point. Then click the **"Write"** button.

The customer also could click **"Read"** button to read the current OTP point.

In order to make sure the OTP protection works normal, some constraints have been introduced.

1. The range of NTC trigger point is 80°C~110°C. The default value is 100°C.

## V. Save& Load profile

**Step1:** Please click the "Save" button in the tool bar. The GUI would save current configured parameters.

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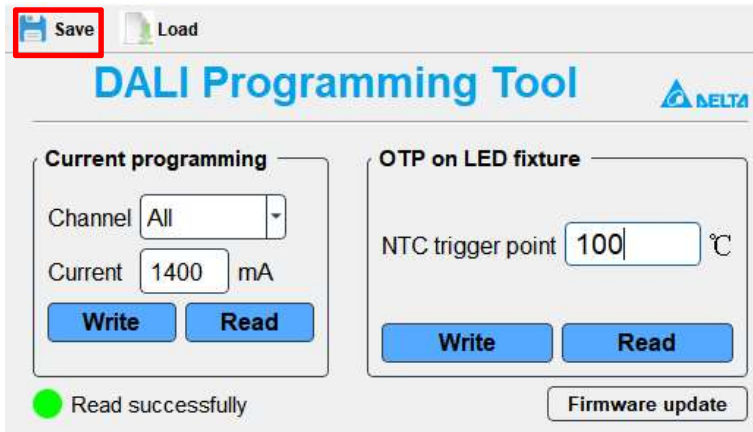


Figure 10. Save profile

The program will create a new folder in current path named “profile”. In this folder, the file with parameters is named “config.ini”.

**Step2:** Please click “Load” button to load the last saved profile.

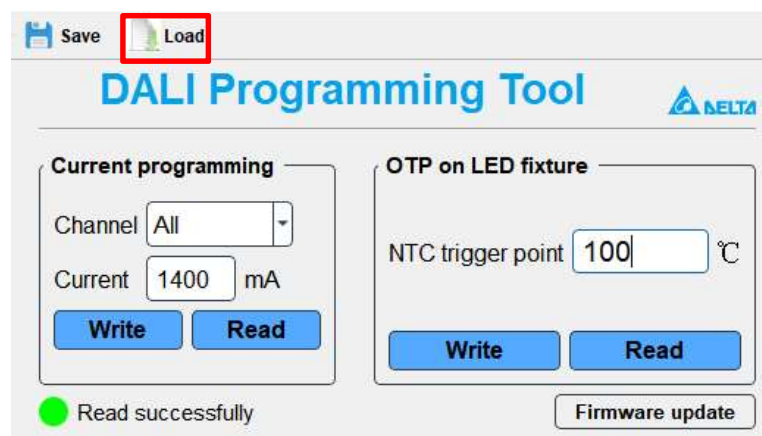


Figure 11. Save profile

And every time the GUI starts, it will load the profile automatically.

## VI. Firmware update

**Step1:** Before updating the firmware, please make sure that the programming tool you are using is the latest version which the model number is SDPT05UAA or SDPT05UAB. And, the AC power of the driver has been turned off for at least 30 seconds.

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**Note:** If you use SDPT05UAB for updating, it would support update 30~40pcs at a time.

**Step2:** Click “**Firmware update**” button in the lower right corner. The firmware update interface would pop out.

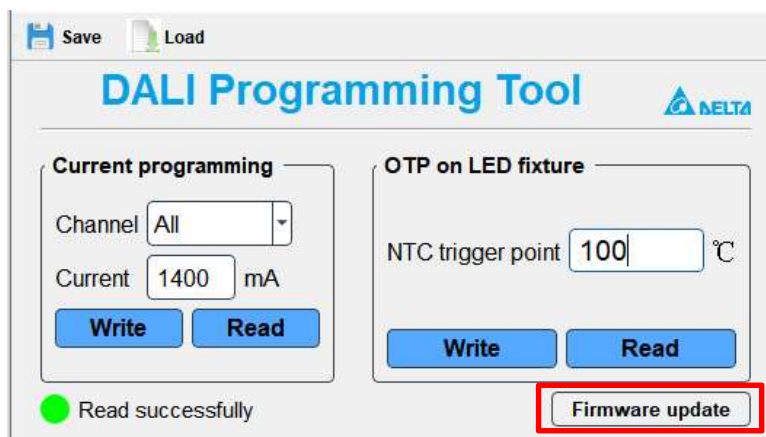


Figure 12. Click Firmware update button

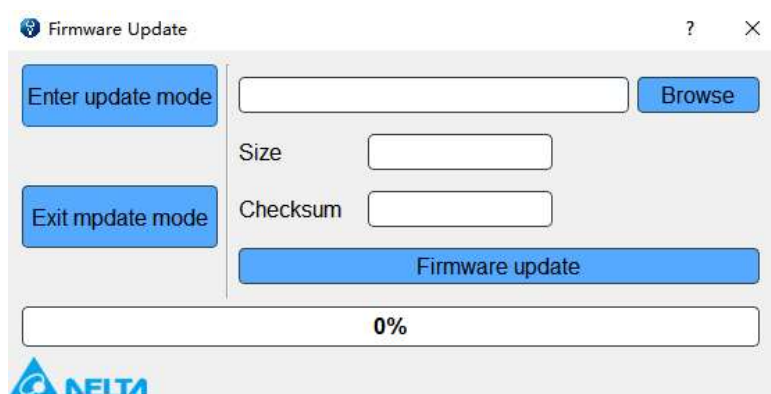


Figure 13. the interface of firmware update

**Step3:** Click the button “**Enter Update mode**” as shown below.

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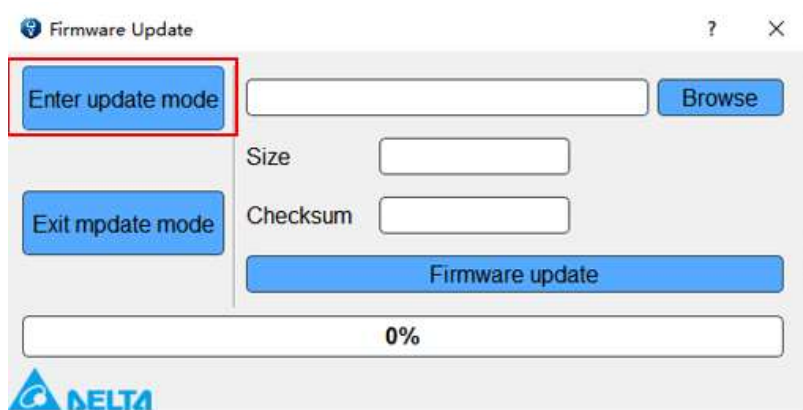


Figure 14. Enter firmware update mode

Please click “NO” in the following picture.

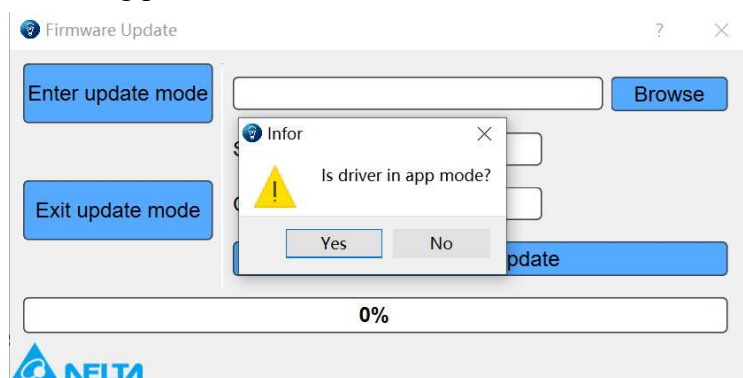


Figure 15. Choose enter update mode

When a message “**Wait for AC power on ...**” pops up, turn on the AC power of driver. After the AC power is stable, click “OK” button.

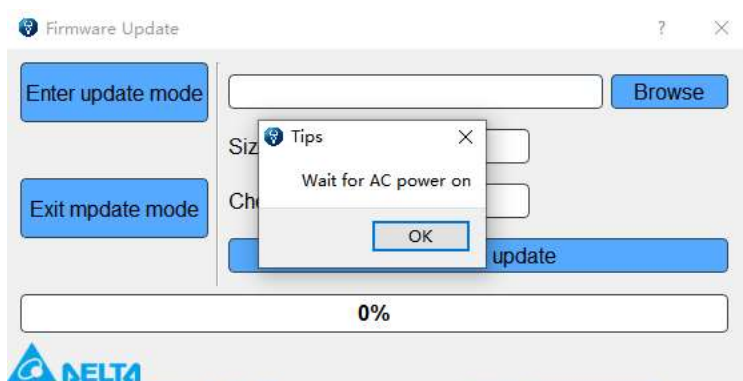


Figure 16. Message: Wait for ac power on

If the MCU has already been in update mode, a message “MCU is ready for updating” would pop out.

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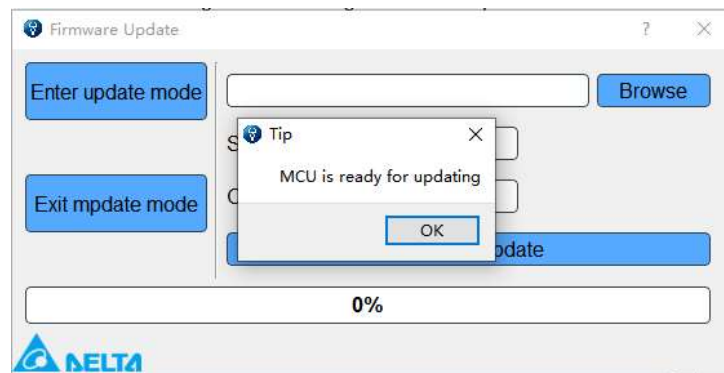


Figure 17. Message: MCU is ready for updating

Step 4: Click **“browse”** button and choose the hex file that you are ready for updating. Please check the size and checksum of hex file in case of updating wrong file.

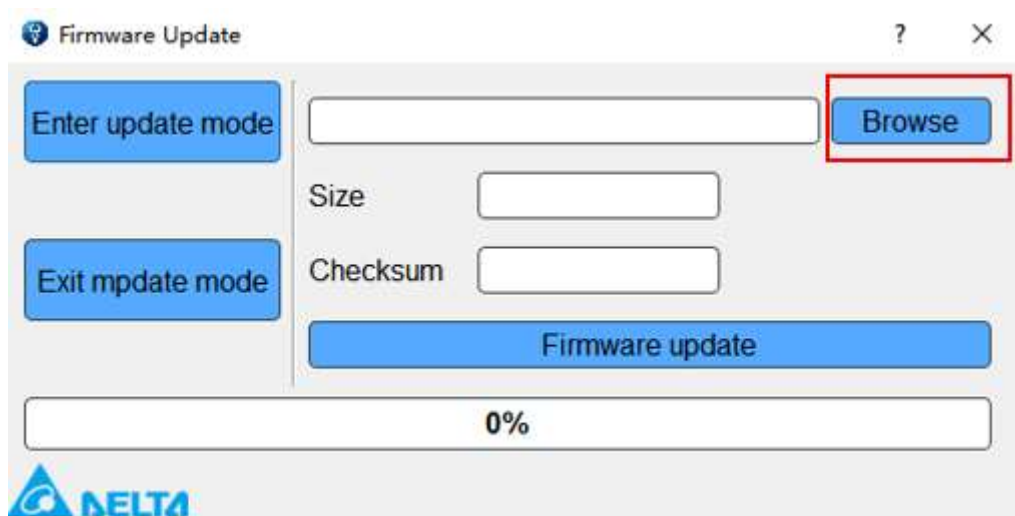
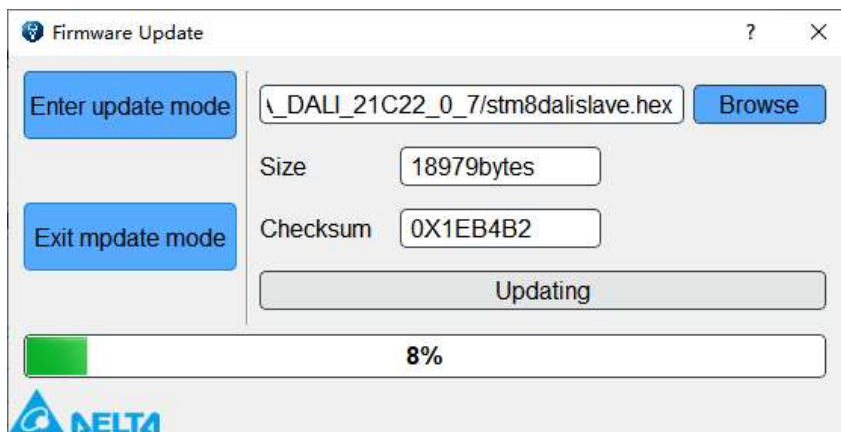


Figure 18. Read hex file

Step 5: Click button **“Firmware-update”** to update firmware. The progress state shall be shown in the progress bar.



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Figure 19. Update hex file

When the update is completed, **“Update successfully”** would pop out. The whole update process will take about one minute.

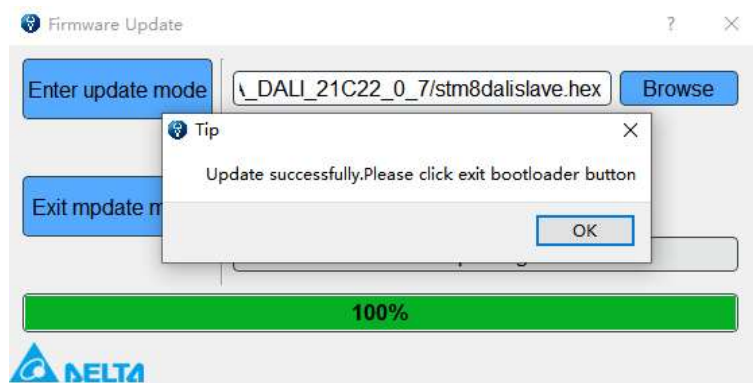


Figure 20. Update successfully

Step 6: Click button **“Exit Update mode”** to exit update mode.

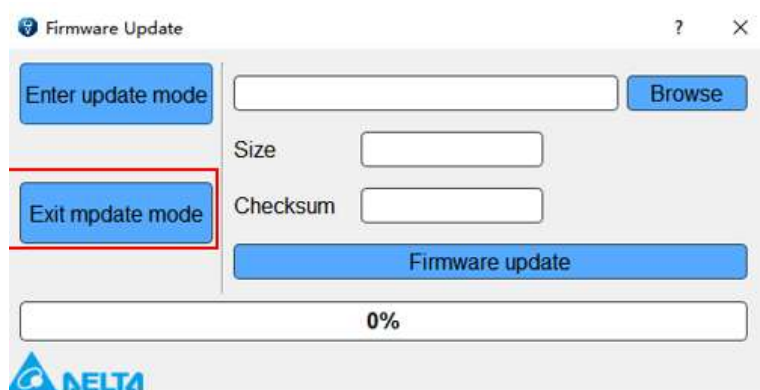


Figure 21. Exit update mode

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