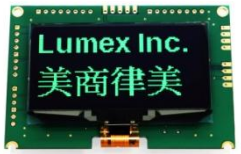
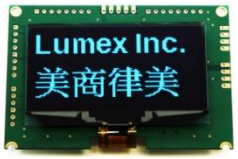
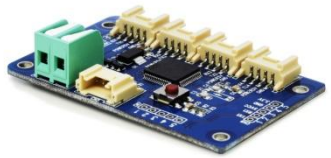
LUMEX®

Creating LED and LCD Solutions Together™





Easy Display Console User Guide



December, 2016

S/W preparation

Step 1 : Install the Lumex Easy Display Console

- **Run the setup file "EzCSetup.msi" that download from www.lumex.com.tw**

Step 2 : Install the USB to UART converter driver

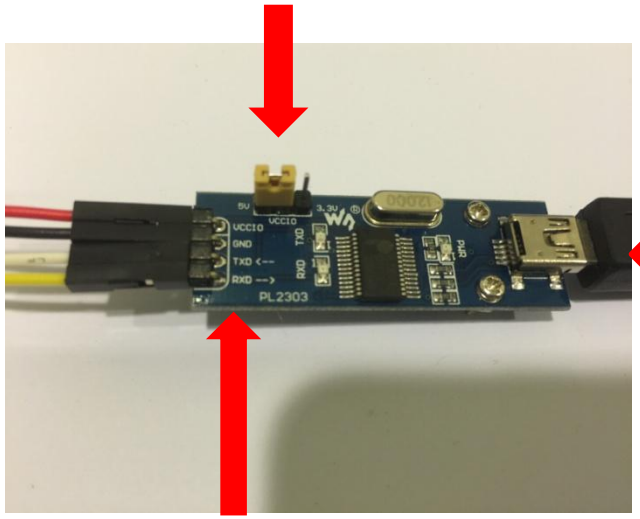
- **Search for the "CP2102 driver" or clip the link http://www.silabs.com/products/mcu/pages/usbtouartbridgevcpdrivers.aspx**
- **Download the driver and install it on PC or Notebook**
- **Reboot the PC or Notebook**

Step 3 : After H/W setup ready double clicks on the "Lumex EzDisplay" icon to run the console

Remark : The CP2102 is optional. User can choose their own USB to UART board.

H/W preparation

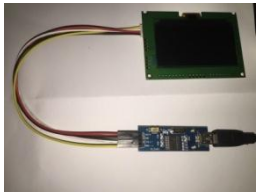
Step 1 : Connect the Jumper switch to 5V



Step2 : Connect the Micro USB cable to USB to UART converter board

Step 3 : Connect cables to USB to UART converter

- **Red color cable connect to VCCIO**
- **Black color cable connect to GND**
- **White color cable connect to TXD**
- **Yellow color cable connect to RXD**



Step 4 : Connect cable to OLED or Dot matrix LED Display module

Step 5 : Connect the USB cable to PC or Notebook

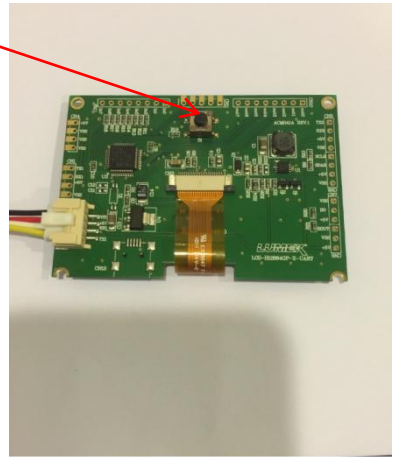
Step 6: Before click on the "ezDisplay" icon please refer to next page

Special setting for OLED

The EZ Display Console runs AT command mode and Graphic mode.

However, the OLED module is default for HEX command mode, Please click the switch on the back to enter the AT command mode.

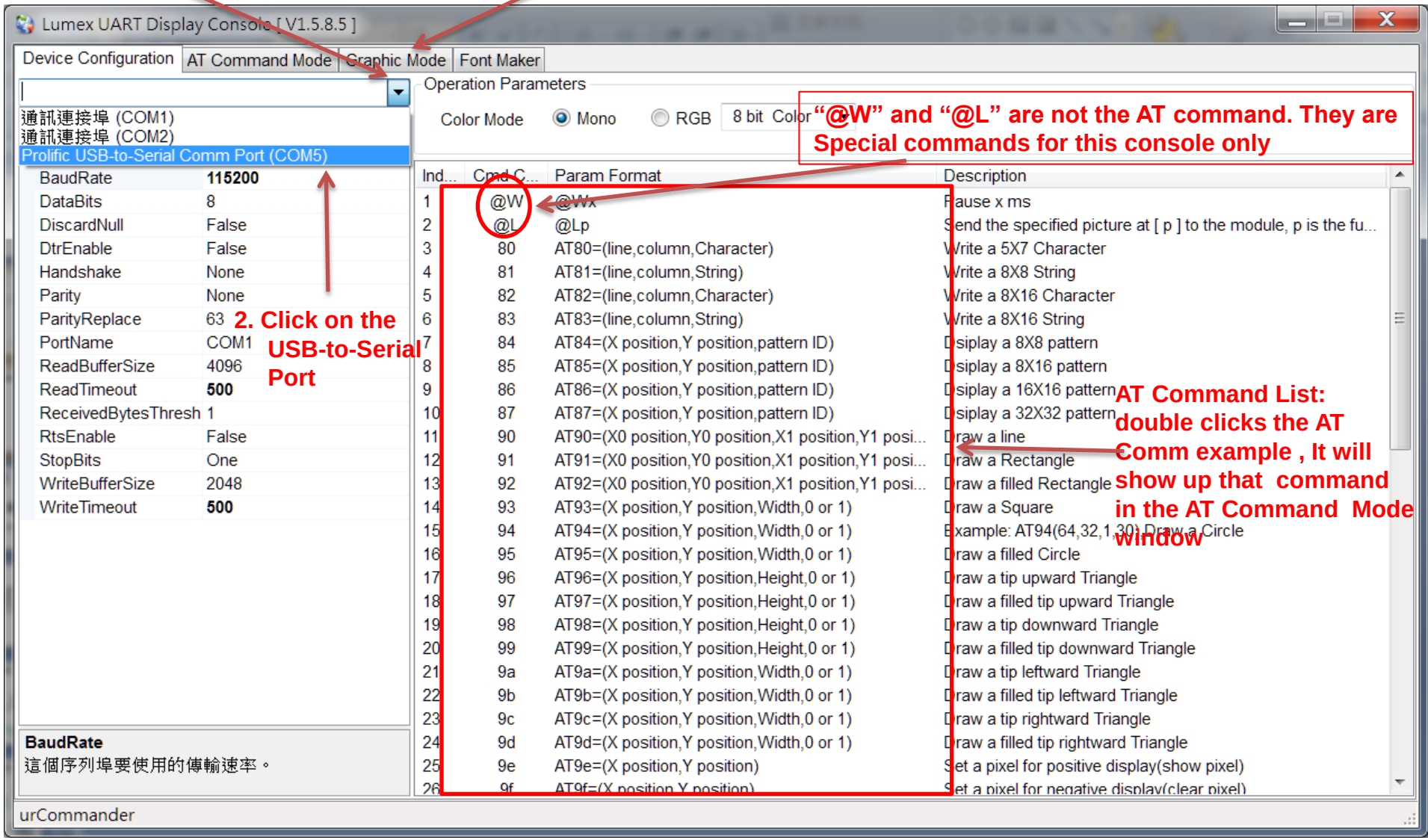
For Dot Matrix LED display module , it is default for AT command mode. There is nothing to be changed



Device configuration

1. Click here to pop out the COM port list

3. Click on the Graphic Mode Tab to switch to Graphic window



2. Click on the USB-to-Serial Port

"@W" and "@L" are not the AT command. They are Special commands for this console only

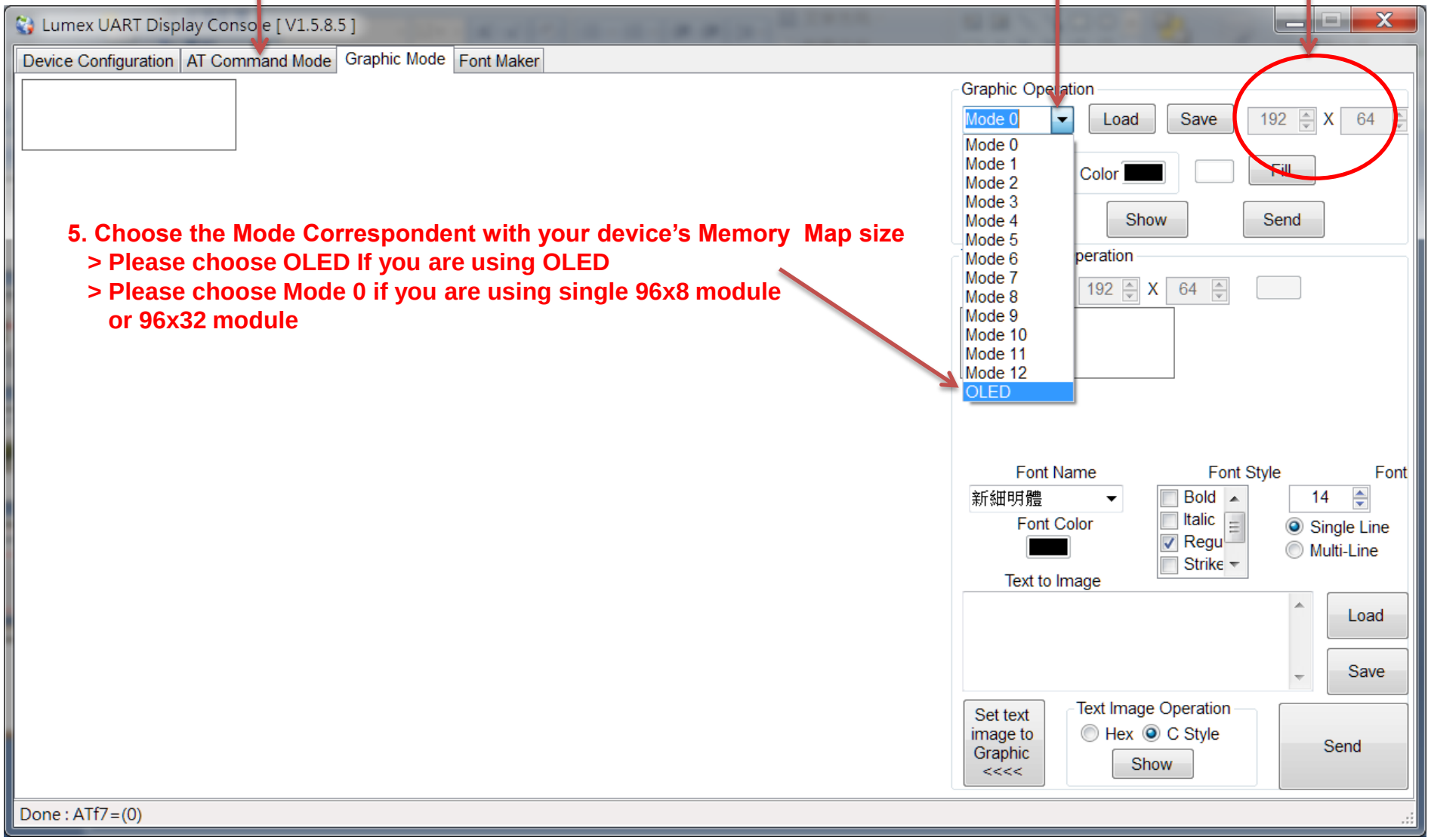
AT Command List: double clicks the AT Comm example , It will show up that command in the AT Command Mode Window

Device configuration

Memory size correspond to Each mode

6. Click on the Graphic Mode Tab to switch to AT Command window

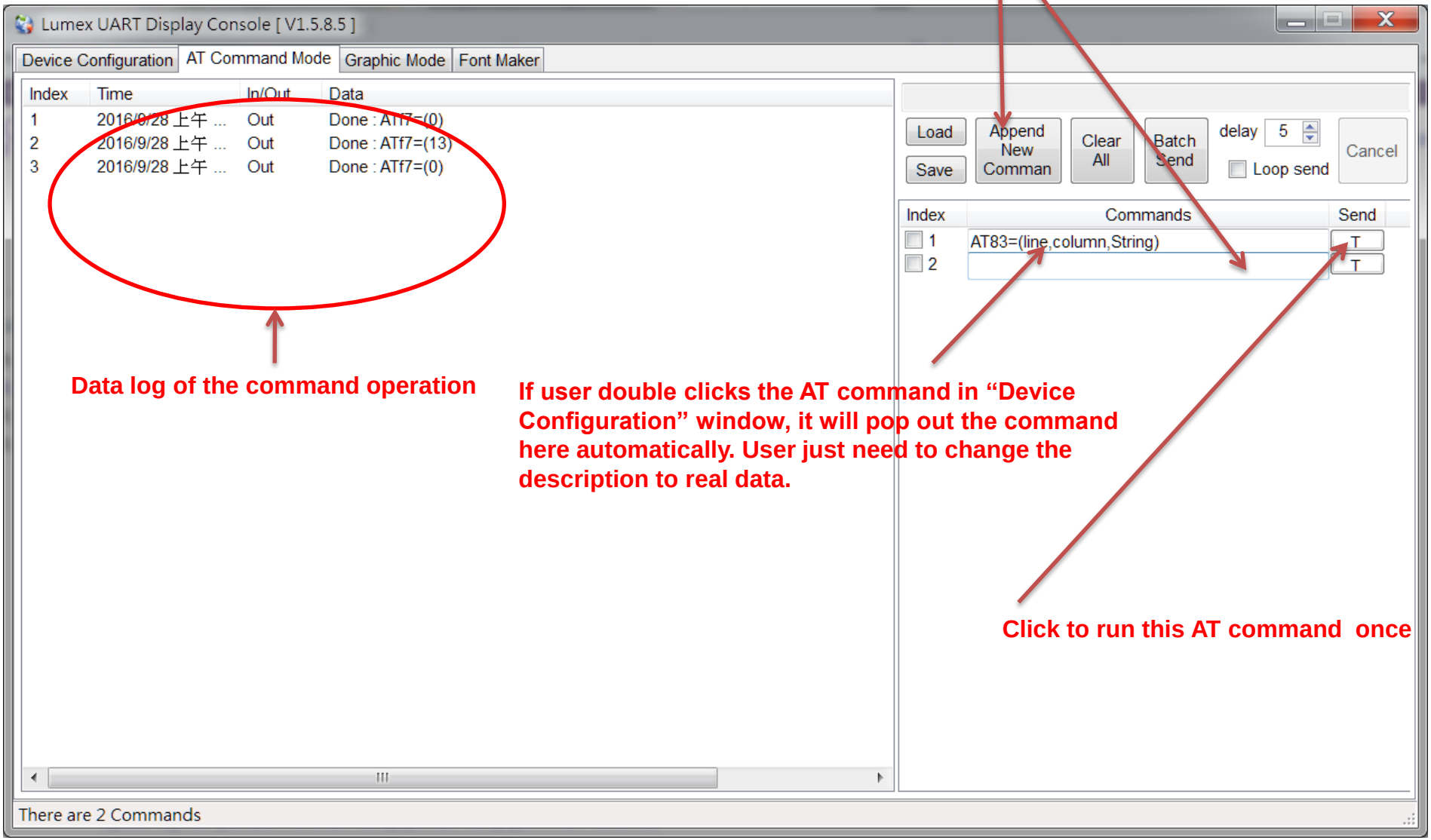
4. Click here to pop out the Mode selection List



5. Choose the Mode Correspondent with your device's Memory Map size
   > Please choose OLED If you are using OLED
   > Please choose Mode 0 if you are using single 96x8 module or 96x32 module

AT Command Window Operation

Click this button will add one blank command line below for user to type in the AT command manually



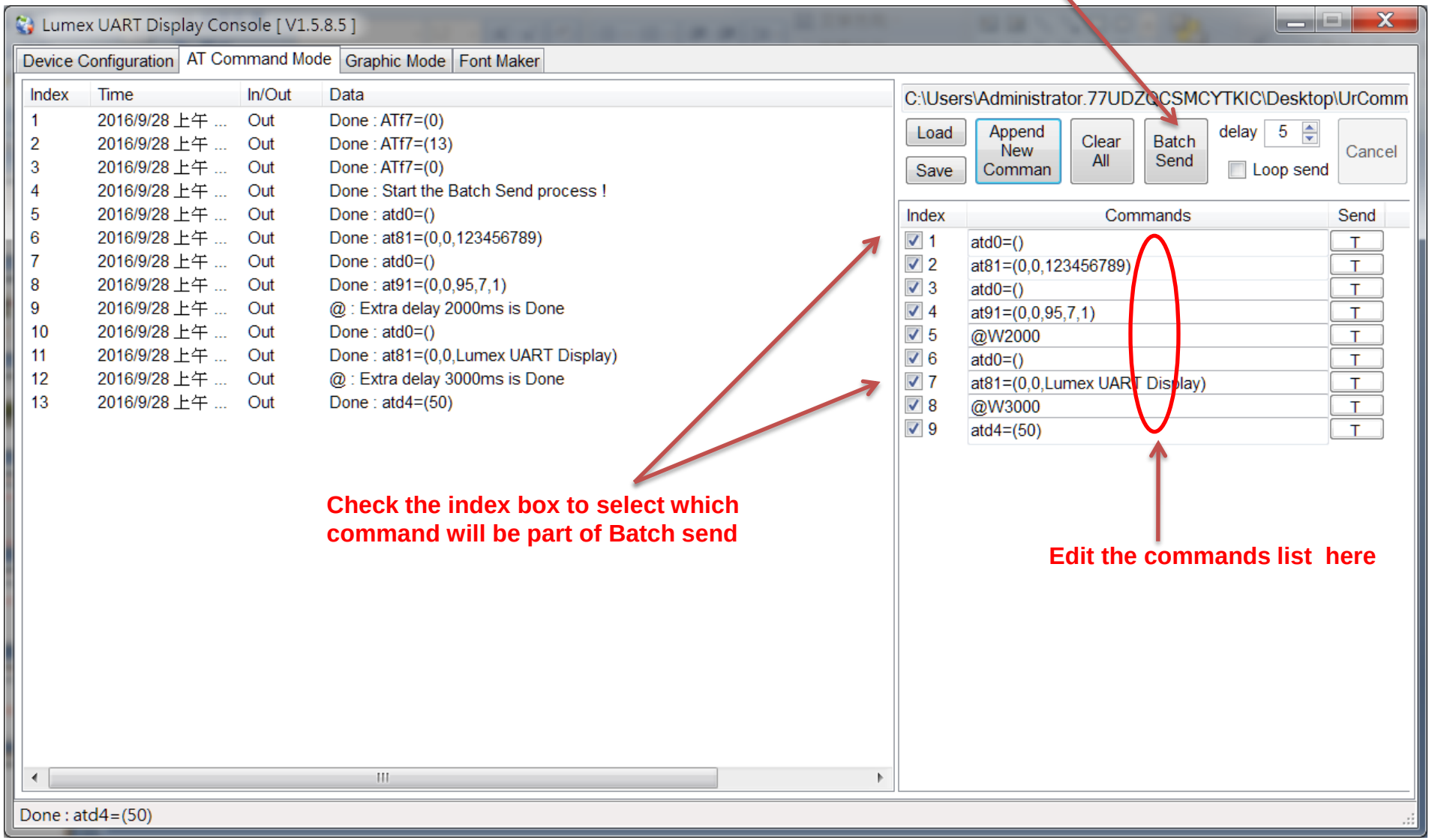
Data log of the command operation

If user double clicks the AT command in “Device Configuration” window, it will pop out the command here automatically. User just need to change the description to real data.

Click to run this AT command once

AT Command Window Operation

Instead of click the 'T' button to run once on every click.
It can run in batch mode by click "Batch send" button

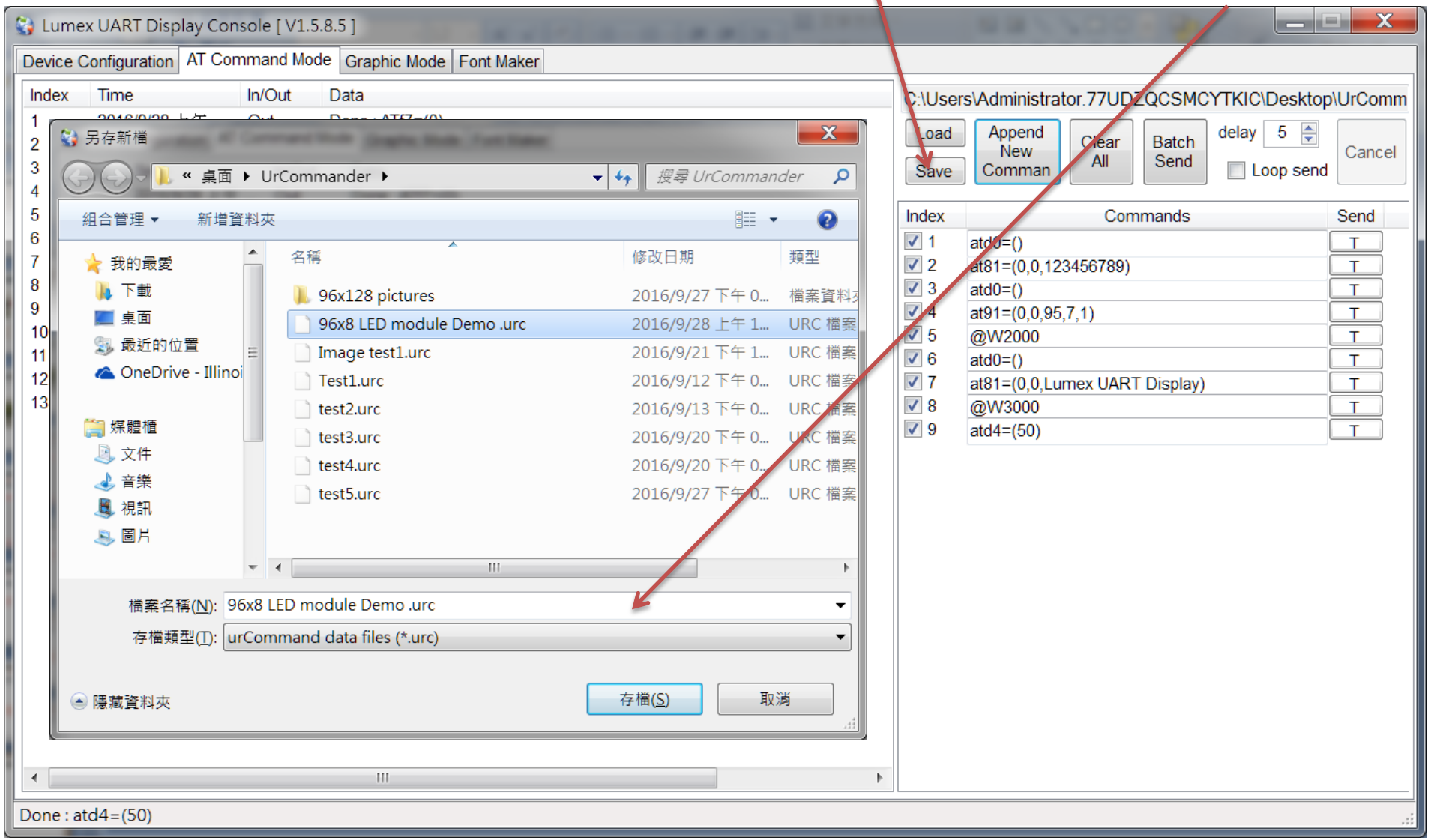


Check the index box to select which command will be part of Batch send

Edit the commands list here

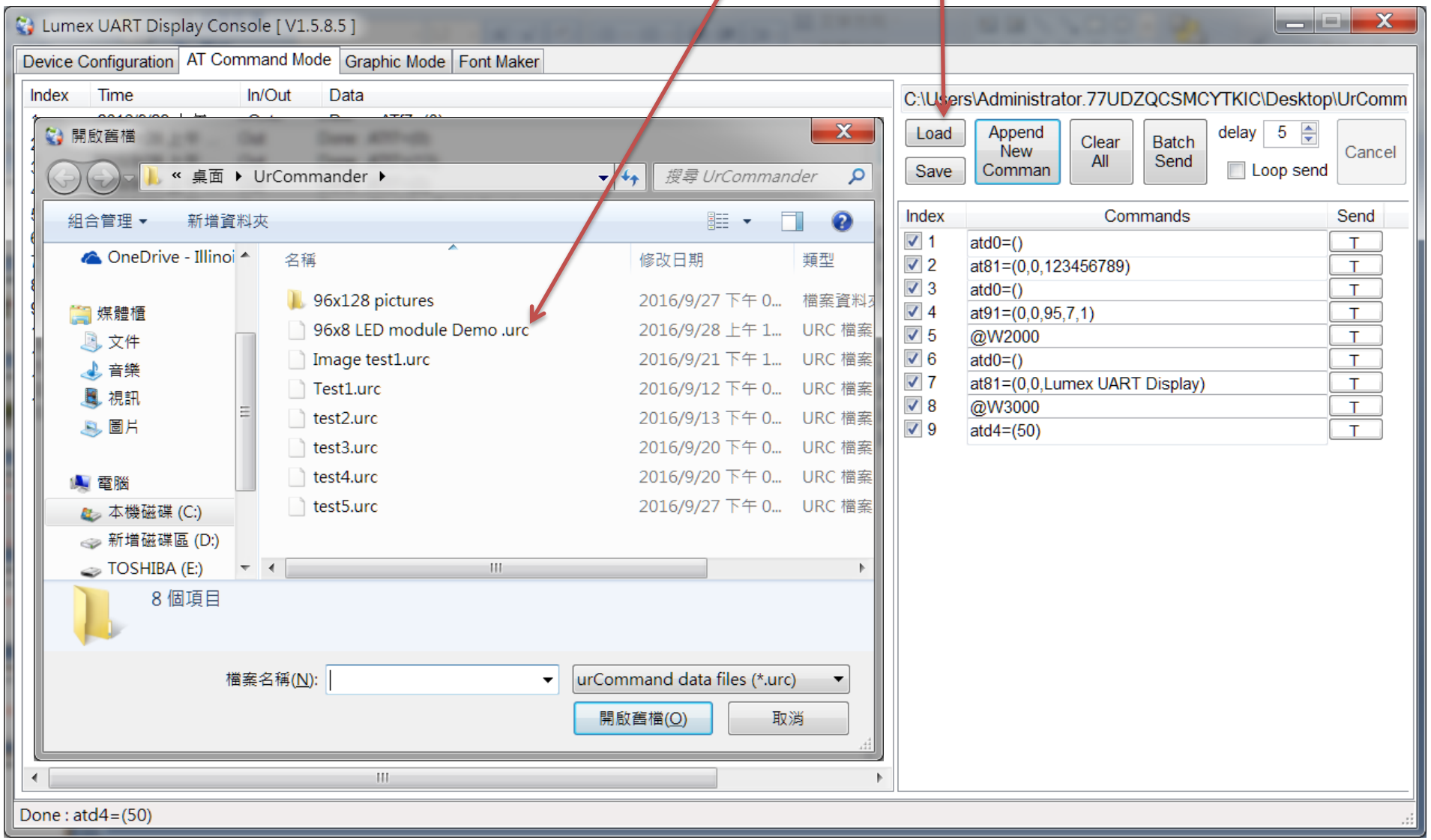
AT Command Window Operation

Batch send can be save for re-use next time by clicking the “Save” button, a save window will pop out . The extension name of batch file is default as .urc



AT Command Window Operation

You can load the pre-defined batch file (with .urc extension name) into AT command list by clicking the "Load" button

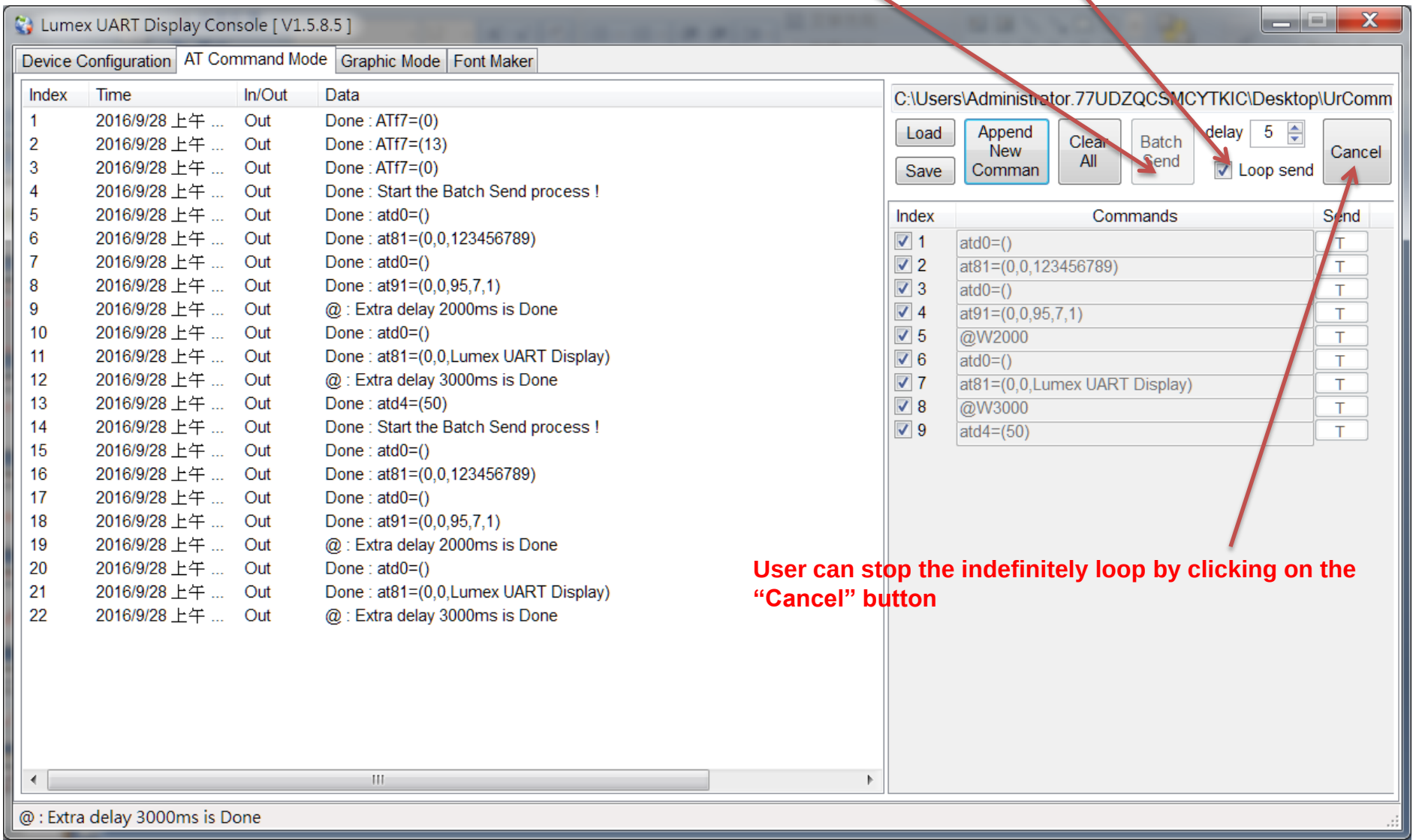


AT Command Window Operation

User can make the batch sent run in indefinitely loop by check the “Loop send” box then click on the “Batch sent “ button

2

1

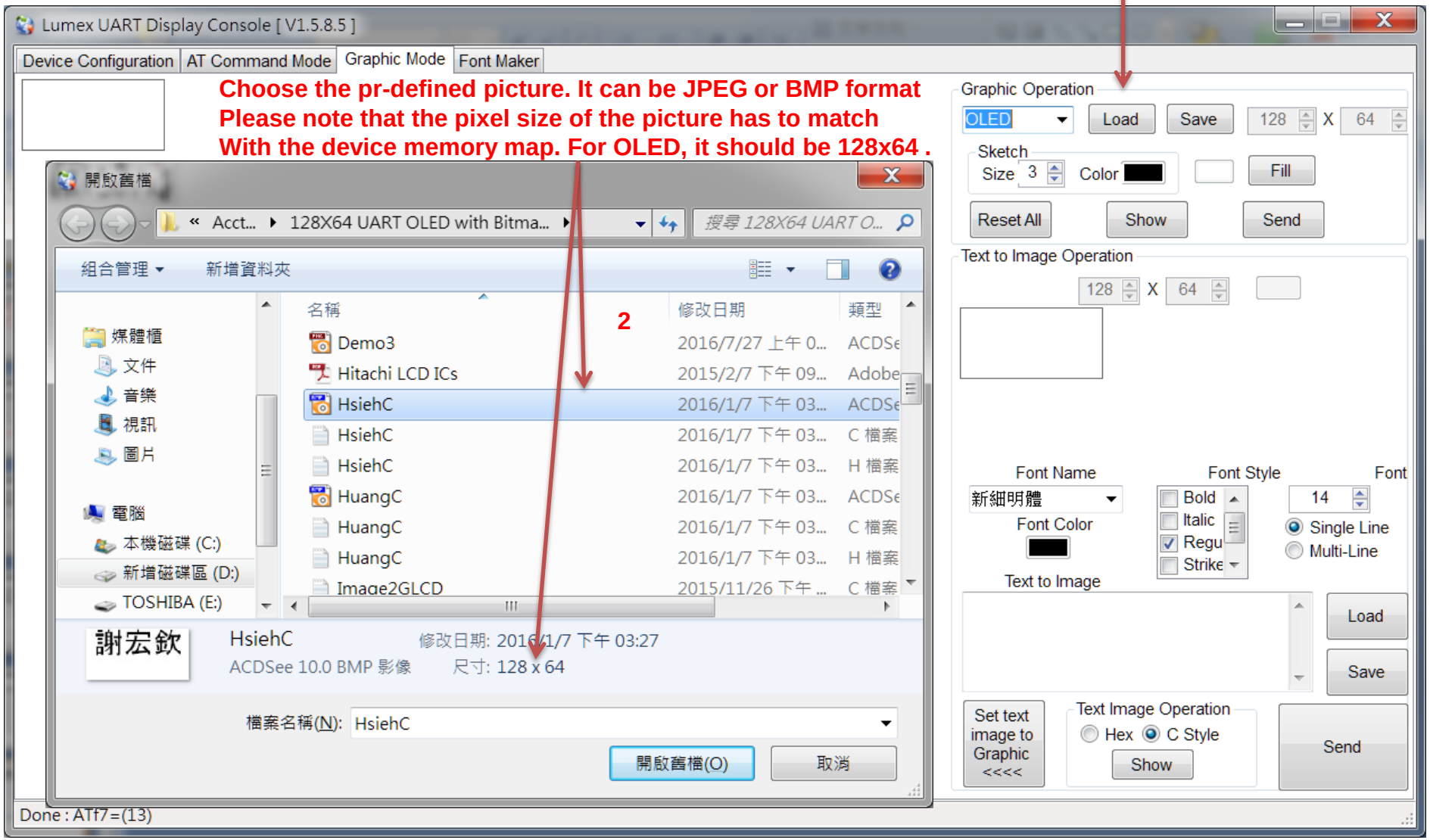


User can stop the indefinitely loop by clicking on the “Cancel” button

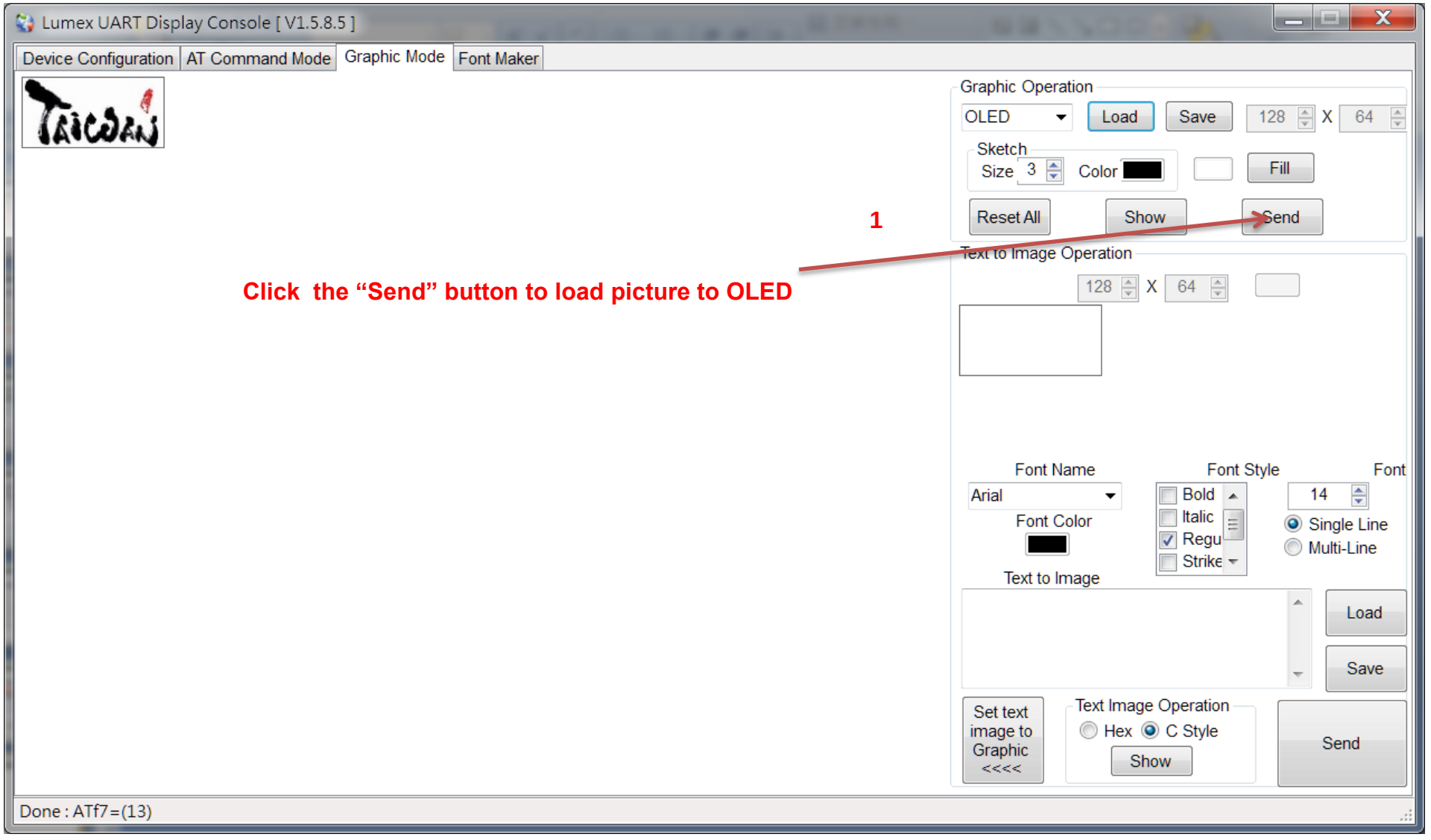
Graphic Mode Operation Using OLED as example -1

Click the "Load" button to load picture to OLED, a window will pop out

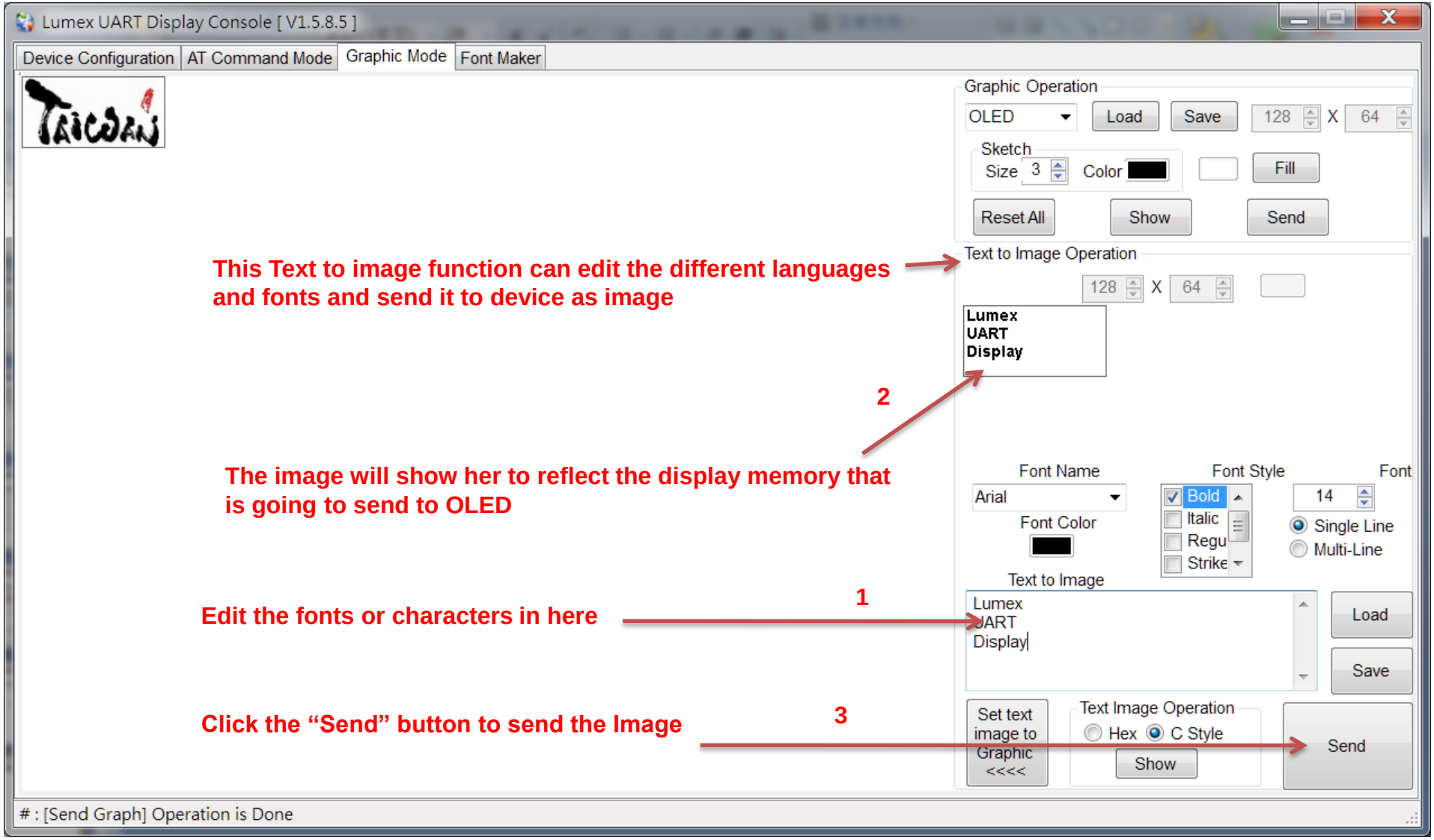
1



Graphic Mode Operation Using OLED as example -1



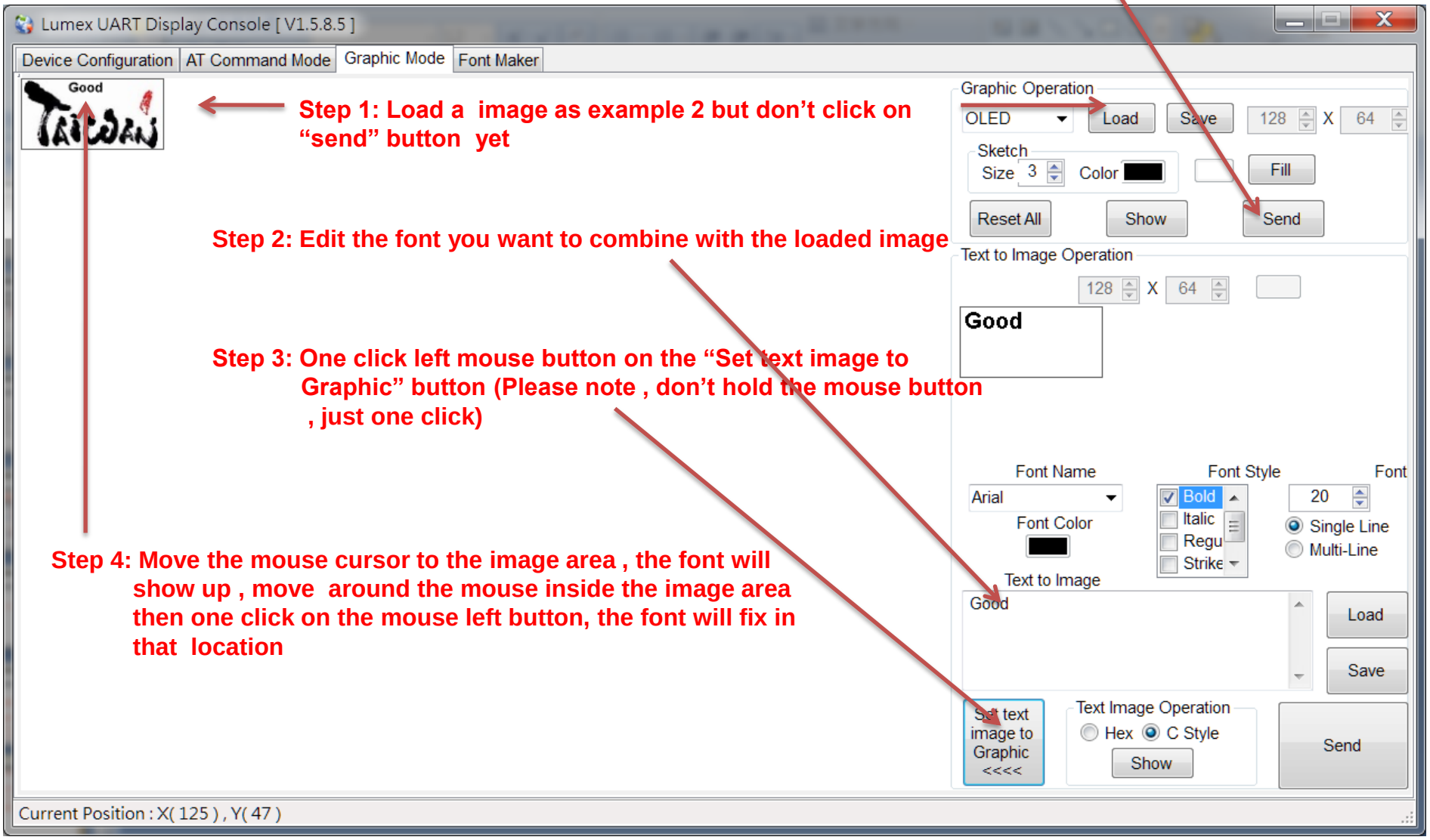
Graphic Mode Operation Using OLED as example 2



Graphic Mode Operation Using OLED as example -3

This Text to image function and Graphic operation can mix to form more complex image

Step 5: Click on the "Send" button to display the image



Step 1: Load a image as example 2 but don't click on "send" button yet

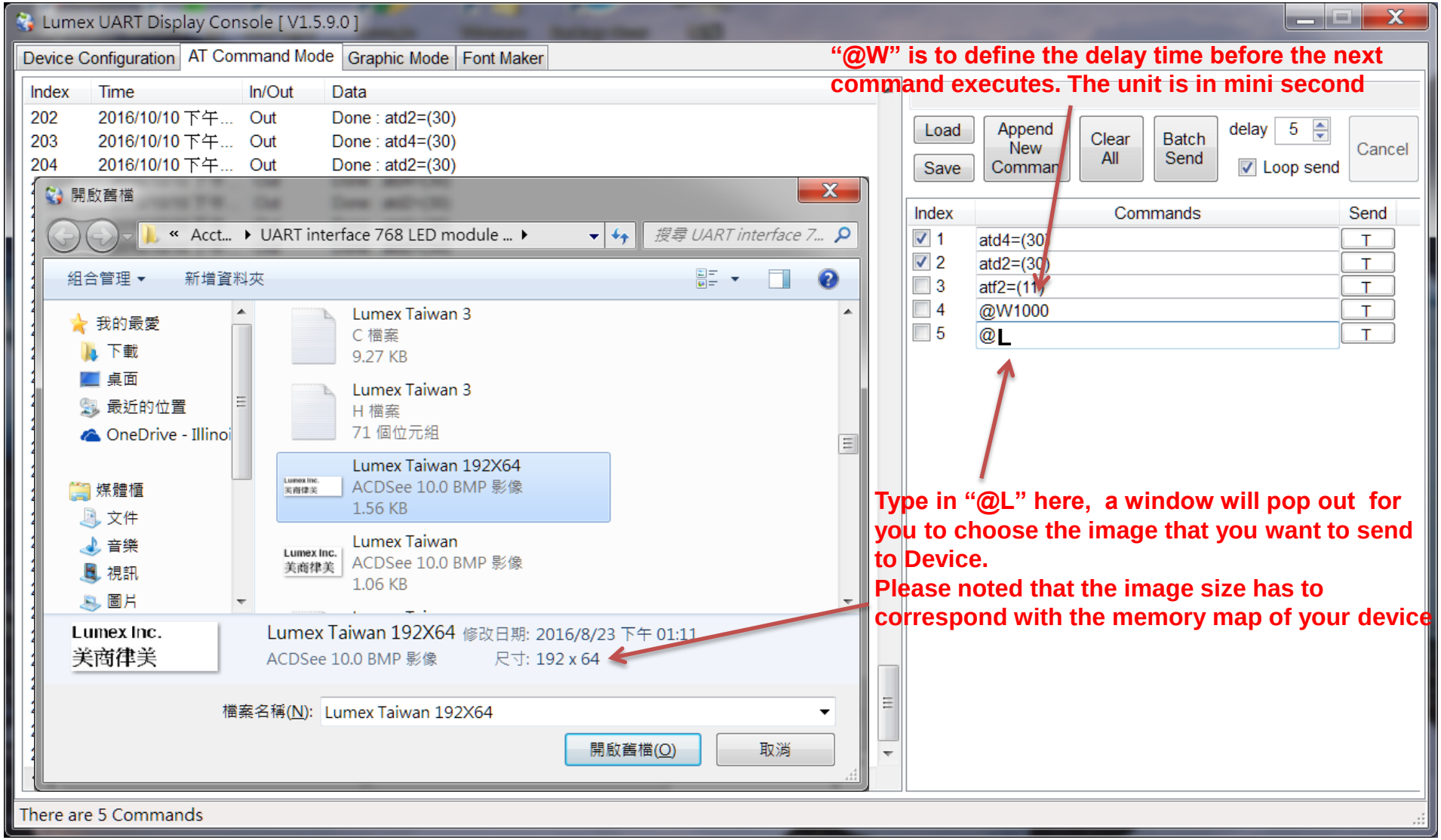
Step 2: Edit the font you want to combine with the loaded image

Step 3: One click left mouse button on the "Set text image to Graphic" button (Please note , don't hold the mouse button , just one click)

Step 4: Move the mouse cursor to the image area , the font will show up , move around the mouse inside the image area then one click on the mouse left button, the font will fix in that location

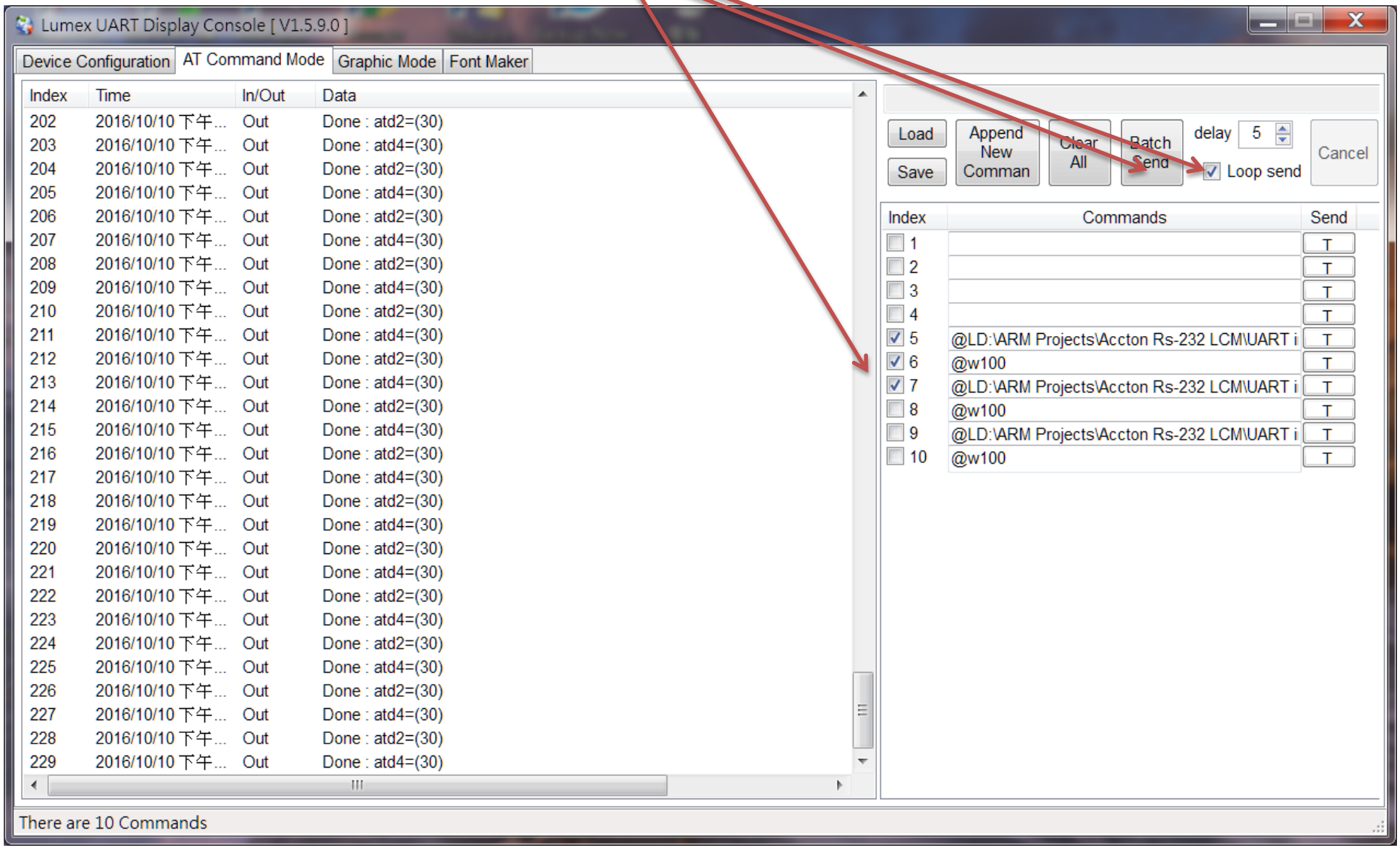
How to load and send an image under AT command mode

User can load the images in the AT command window by using the “@L” command . Please noted that the “@L” and @W are not AT command. Ithey can only been used in this console.



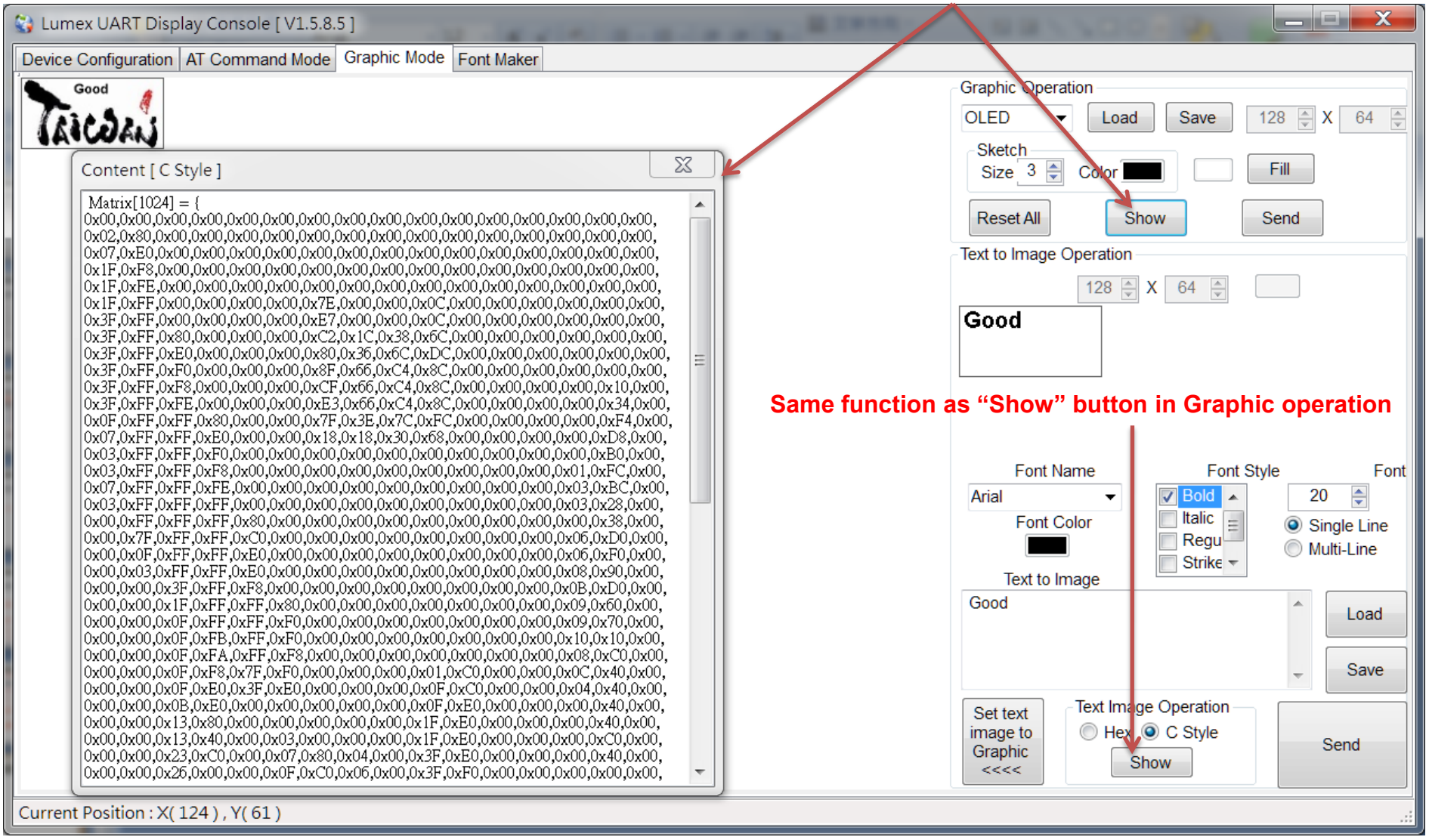
How to perform an animation under AT command mode

User can load images as many as they want and run under batch send mode to create the animation by using the "@L" command, "@W" can be used to adjust the image refresh time



How can I use the image created in this AP to my MCU (Using OLED as example -4)

Click on the "Show" button a window will pop out. User can copy and paste the text form image matrix to their IDE to apply on MCU



How the Font maker works?

Same function as “Show” button in Graphic operation