

# LED Bar UART Protocol - BrightAuthor

## UART Settings

- 19200 bps
- Data 8 bit
- No parity
- 1 stop bit
- No flow control

## UART / Serial Commands

Mimo BrightSign Built-In displays with LED bars utilize the native BrightAuthor serial commands. Write 3 bytes/command and read 3 bytes to check the result. These are and need to be decimal.

Function	CMD	MODE	SUM
LED Start (On)	51	32	83
LED Clear (Off)	52	32	84
Set Mode (Color)	53	MODE_VAL	53+MODE_VAL
Set Brightness	55	Brightness (0~100)	55+Brightness

Read and check result (UART read 3 bytes)

RCMD	STATUS	RSUM
== CMD	== 1 OK == 0 ERROR	== RCMD+STATUS

## MODE\_VAL (Color) definition

LED_RED	65	LED_GM_ROTATE	79
LED_GREEN	66	LED_COLOR_ROTATE	80
LED_BLUE	67	LED_RED_LEFT	81
LED_WHITE	68	LED_RED_RIGHT	82
LED_YELLOW	69	LED_GREEN_LEFT	83
LED_CYAN	70	LED_GREEN_RIGHT	84
LED_MAGENTA	71	LED_BLUE_LEFT	85
LED_SILVER	72	LED_BLUE_RIGHT	86
LED_RED_ROTATE	73		
LED_GREEN_ROTATE	74		
LED_BLUE_ROTATE	75		
LED_RG_ROTATE	76		
LED_RB_ROTATE	77		
LED_GB_ROTATE	78		

## How To Use The Commands Above In BrightAuthor

### General Info

Sending multiple commands simultaneously may cause undesirable results. Below are examples of single commands that work reliably.

#### To Set A Color

- Send the Set Mode (Color) command.

#### To Set Color Brightness

- Once a color is on, send the Set Brightness command.

#### To Turn Off A Color

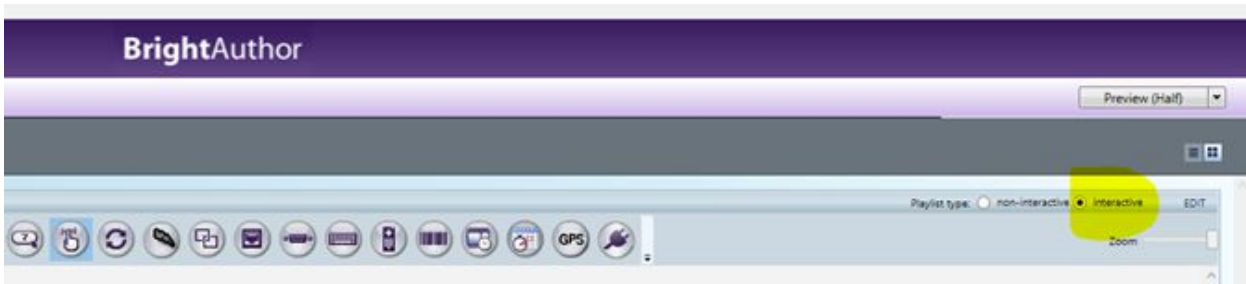
- Send the LED Clear (Off) command.

#### To Turn On A Color

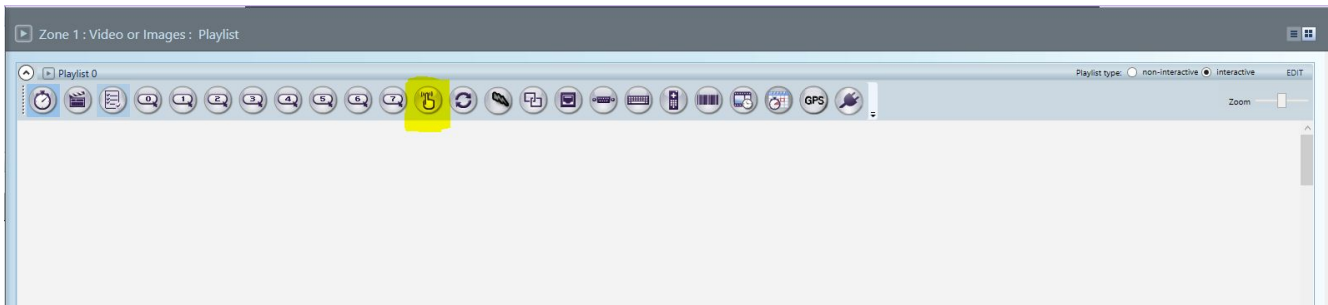
- Send the LED Start (On) command. This will illuminate the last programmed color.

# How To Create An LED Presentation

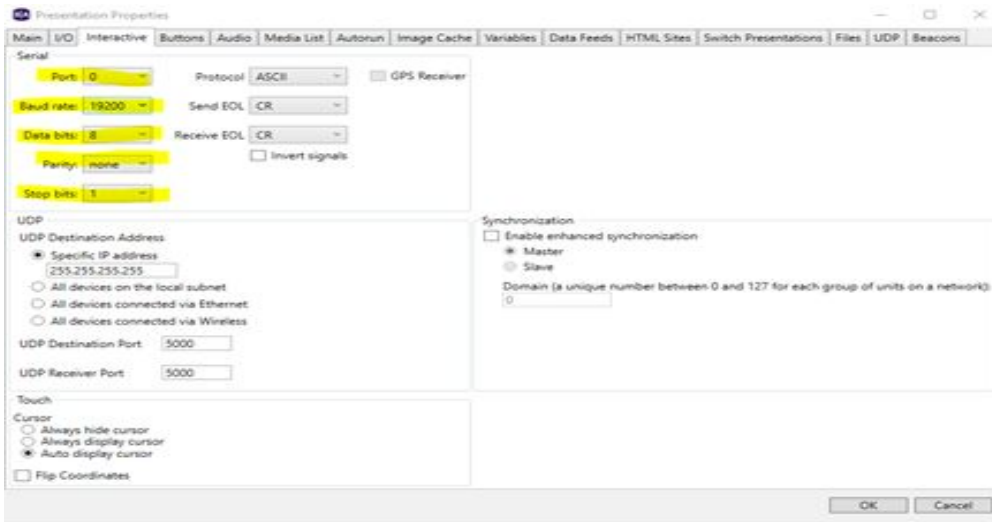
1. Create a new presentation and select Interactive.



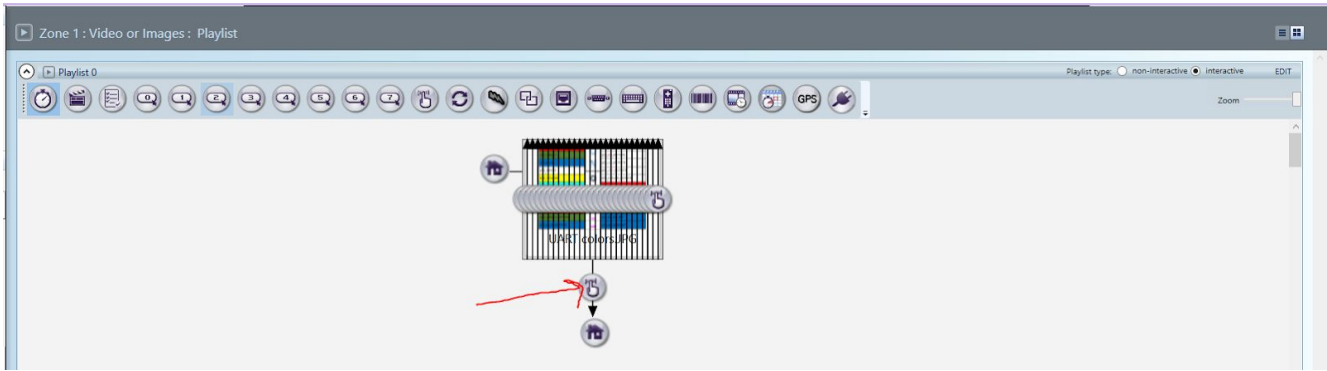
2. The work space should update as shown in this image.



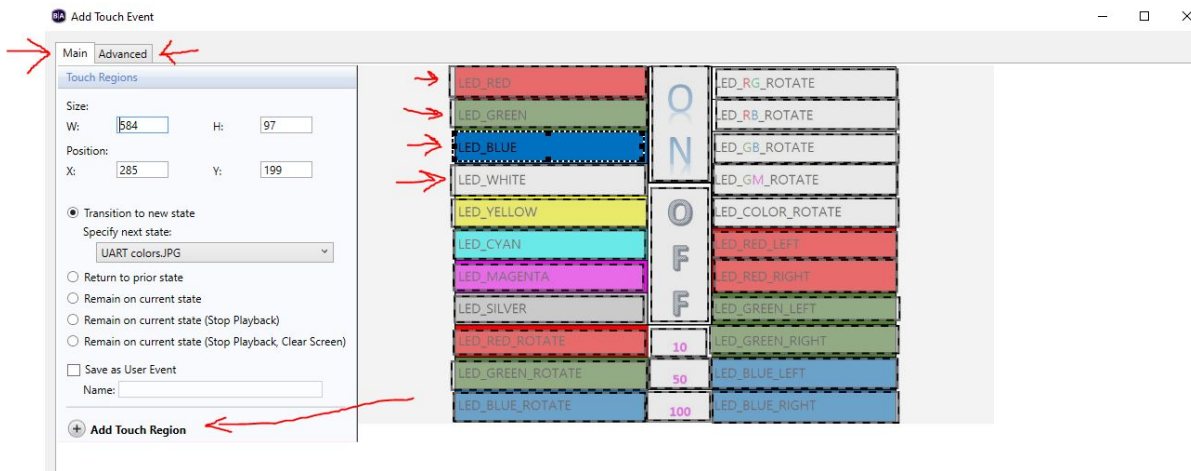
3. Make sure that the UART is properly configured.
  - o File → Presentation Properties → Interactive
  - o Configure per the UART Settings (see page 1)



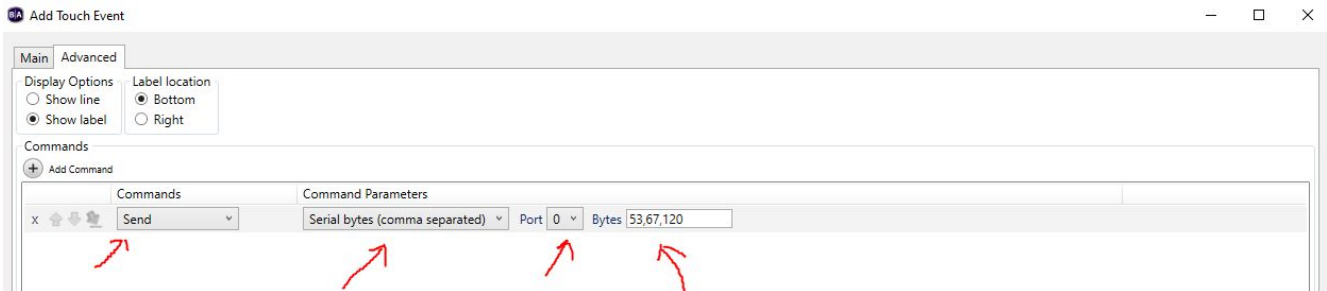
4. As with any BrightAuthor presentation, drag and drop an image into the Zone workspace - this will be what you see when the device is rebooted.
5. Click on the touch Touch Event icon (highlighted in image #2 above).
6. Click on the bottom portion of the image that you inserted and drag until a line appears.
7. Double click on the touch icon (see below).



8. This should generate a pop-up with two menus, Main and Advanced (see image below).
9. Main will allow you to create touch regions by dragging the outline as desired.
  - o See the image below where numerous touch regions have been created by dragging the borders over an area and then clicking the Add Touch Region button to repeat the process within an image.



10. After creating a touch region, click on Advanced to assign a command to that touch event.



11. Pull down the Command menu and select Send.
12. Pull down the Command Parameters menu and select Serial bytes (comma separated).
13. Leave port at 0.
14. Enter the decimal values for the desired command, in this example the Set Mode command is used to turn on the color blue when this touch area is touched.
15. Repeat this process for any desired command.

END