# 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

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.

Zone 1 : Video or Images : Playlist		= ::
	Playlist type:  non-interactive  Toom	EDIT
		^

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

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Asim UO Interactive 8 Serial Port 0 * Baud rate: 19200 * Data bris: 8 * Paregy none *	Proto Proto Send B Receive B		Media List ASCII CR CR ] Invert sign	Autorun	Image Cache	Variables	Data Feeds	HTML Sites	Switch Presentation	Files	UDP	Beacons	
UDP UDP Destination Address Specific IP address 235325325325 All devices on the lo All devices connects UDP Destination Port UDP Receiver Port	xcal subnet nd via Ether nd via Winel 5000 5000	net less ]				Synchronic Enable * Ma © Sia Domai 0	ration enhanced sy oter ve n (a unique n	nchronization	t en 0 and 127 for each	group (	of units	on a net	iork)
Touch Cursor Always hide cursor Always display cursor Auto display cursor File Coordinates													
										0	ж	Canc	el :

- 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.
  - 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.

Touch Regions			ED_RG_ROTATE	
Size:			LED_RB_ROTATE	
W: <u>P84</u> H: <u>97</u> Position:		N	LED_GB_ROTATE	
X: 285 Y: 199			LED_GM_ROTATE	
Transition to new state	LED_YELLOW	0	LED_COLOR_ROTATE	
Specify next state:	LED_CYAN		LED_RED_LEFT	
Return to prior state	LED_MAGENTA	7 6	LED_RED_RIGHT	
Remain on current state	LED_SILVER	F	LED_GREEN_LEFT	
Remain on current state (Stop Playback)     Remain on current state (Stop Playback, Clear Screen)	LED_RED_ROTATE	10	LED_GREEN_RIGHT	
Save as User Event	LED_GREEN_ROTATE	50	LED_BLUE_LEFT	
Name:			LED BUIE DICHT	

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

Add Touch Ever	nt		5 <u>434</u>	×
Main Advanced				
<ul> <li>Display Options</li> <li>Show line</li> <li>Show label</li> </ul>	Label location			
Commands + Add Command				
	Commands	Command Parameters		
x 会导教	Send v	Serial bytes (comma separated) × Port 0 × Bytes 53,67,120		
7	71	7 1 5		

- 11. Pulldown the Command menu and select Send.
- 12. Pulldown 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.