In this document, I will describe the configuration in order to have the panel working with Jynx and Arduino Uno. Online effects change.

My panel has 600 leds. As it is based on the GS1903 chip, each IC controls 3 leds. So in that sense I have 30 leds on each line (X-axis) but only 10 channels per line. As I have 20 lines (Y-axis), for the software, the panel will be composed by 200 leds (10x20).

The very first think to do is to compile and transfer the following code to your Arduino Uno (change the NUM\_LEDS to the number of leds on your matrix. Data pin is on pin 5 of arduino):

#include "FastLED.h" #define NUM\_LEDS 200 const int dataline = 5; CRGB leds[NUM\_LEDS]; void setup() { Serial.begin(100000); LEDS.addLeds<WS2812B, dataline>(leds, NUM\_LEDS); pinMode(13, OUTPUT); digitalWrite(13, LOW); } int serialGlediator() { while (!Serial.available()) {} return Serial.read(); } void loop() { while (serialGlediator() != 1) {}

digitalWrite(13, HIGH);

for (int i=0; i < NUM\_LEDS; i++) {

leds[i].r = serialGlediator();

leds[i].g = serialGlediator();

leds[i].b = serialGlediator();

```
}
```

FastLED.show();

digitalWrite(13, LOW);

```
}
```

Now open the Jynx, and set up your matrix

Jinx! - LED N	Natrix Control [FPS: 24.94]	
File View Set	Help	
	Matrix Options	
	Output Devices	
	Output Patch	
	Network Options	
	Remote Control	
	Configure DVI Window	
	GUI Options	
	Audio AutoGainControl	
Channel 1	Start Output	
None / Blacko	out   None / Blackout   Progressive	
Speed	Speed	

Mine is 10 by 20 so it will look like this:

Jinx! - LED Matrix Control	[FPS: 25.03]
File View Setup Help	
	Matrix Options × Matrix Dimension Width (4-480px) 10 Height (4-480px) 20 Pixel Count (max 48000 allowed) 200
	Matrix Options         PixelStep (increase on a big matrix)         1         Space between Pixels (Grid width)
Channel 1 / Effect 1	Grid / Background Color Black
Channel 1 Mix Progressive	Cancel OK

The next step is to configure the output device. You need to know the port of your Arduino Uno (mine is COM7):

1	Jinx! - LED Matrix Control [FPS: 25.09]										
File	View	Set	tup Help								
			Matrix Options								
			Output Devices								
			Output Patch								
			Network Options								
			Remote Control								
			Configure DVI Window								
			GUI Options								
			Audio AutoGainControl								
۲ <sup>Ch</sup>	annel 1.		Start Output	- Mai							
N	None / Blackout  Pn Speed Speed										

J	Jinx!	- LED	Matrix Contro	I [FPS: 25.00	)]					
Fil	e Vie	w Se	etup Help							
	C	)utput	Devices	_	_				_	×
ł.		ID	Driver		IP-Address/Seria	alport	Adressing		Add	1.
I									Edit	
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	Speed	_		Speed						Sp

Click on Add

Here is the trick stuff. The first time I have used, I have left the number of channels in 600. As a result, the last 2 lines of my panel were flickering. It took me a while to discover that, but I got it at the end. Therefore, I suggest putting at least 10 or 20 percent more channels than your matrix has. The number of channels is theoretically calculated by the number of leds times 3 (RGB).

/	Add/Edit Device	
	Device Type	dre
	Glediator	r
	Addressing	
	IP Address Port	
	Broadcast / Multicast (E1.31)	
	Net Subnet Universe	
Ch	Send Artnet Sequence Numbers	
N	_ Data	t
Sp	Channels Chan/Block Blocks	F
9	1200 1200 1	Ρ
Ch	Serial Port / USB Device	F
P	COM7 -	F
Mi	Baud	
P		Ľ
¢	Output Redirection	F
Ch	Redirect Output to File	:t 2
N	Select	t
Sp	Cancel OK	F

Click on OK

Jim Jim	:! - LED	Matrix	Control	[FPS:	25.03]
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View	Setup Help			
output	Devices			
ID	Driver	IP-Address/Serialport	Adressing	Add
1	Glediator	COM7	Chan: 1200 - Baud: 1000000	Edit
				Lon
				Delete
				- Court
				Scan
				Close
	Non-	- / Plashert	Deservative	

Click on close.

Now we are prepared to set up the Output Patch. On the Output Patch we inform to the software where to send the information to. It is a way to say where the channels start and end on the panel.

JN	Jinx! - LED Matrix Control [FPS: 24.97]						
File	View	Set	up	Help			
			Ma	trix Options			
			Ou	tput Devices			
			Ou	tput Patch			
			Ne	twork Options			
			Rer	mote Control			
			Co	nfigure DVI Window			
			GU	l Options			
			Au	dio AutoGainControl			
۲ <sup>Ch</sup>	annel 1.		Sta	rt Output			
N	lone / Bla	acko	ut	▼ None / Blackout ▼			

JN.	linx! - L	.ED Matr	ix Cont	rol [FP	S: 25.0	00]						_	
File	View	Setup	Help										
C	utput l	Patch											x
		1 2	2		5	6	7	0	0	10	- Position		
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	3										Patch Device		
	4										None	_	-
	5				<u> </u>	<u> </u>							
	6										Channel Red	0	
	2										Green	0	
	9				<del> </del>	+				<del> </del>	Green		_
	10			+	$\vdash$	+				$\vdash$	Blue	0	
-	11												
	12										Fast Pa	itch	
	13				<u> </u>	<u> </u>							
	14				<u> </u>				<u> </u>	<u> </u>	Clear Pa	itch	
	15								-				E F
	17				<u> </u>	+				<del> </del>			er
2	18				$\vdash$	+				$\vdash$			E F
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	20												
C.													
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E1		_	_	_	_	_	_	_	_	_	Close	3	
IN	one / B	lackout			one /	Blacko	ut.	-			None / Blackout	ne / Blackr	out v

As you can see, I have a 10 x 20 panel as informed on Matix Options. If you have a bigger matrix and want to use more than one Arduino, you have to set up the parts of the whole panel for each Arduino. In my case it is only one Arduino, so click on Fast Patch.

<b>J</b> ]]	linx! - L	ED Matrix Control [FPS: 25.00]	
File	View	Setup Help	
0	utput F	Patch astPatch ×	
	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Patch Area 9 10   Starting at Pixel: 1/1 1   Dimension: X 10   Y 20   Patch Mode   Linewise starting Top-Left   Pixel Order   First Channel   GBR   0   Patch Device   Glediator COM7 [ 1200 ]   Cancel   OK	
ſ	18 19		

You have then to inform the dimensions, the patch mode, the pixel order and the patch device. Click on OK. Once it is done, the panel will turn green on the software. If you do not know your pixel order, once it is all working, try the basic colors (RGB) and see if they match your selection. If not, try a different pixel order until you get it right. Mine is BRG.

1     2     3     4     5       1     -     -     -     -       2     3     -     -     -     -       3     -     -     -     -     -       4     -     -     -     -     -       5     -     -     -     -     -       6     -     -     -     -     -       7     -     -     -     -     -       9     -     -     -     -     -       9     -     -     -     -     -       10     -     -     -     -     -       11     -     -     -     -     -       13     -     -     -     -     -       13     -     -     -     -     -       14     -     -     -     -     -       18     -     -     -     -     -       19     -     -     -     -     -	6 7 8 9	osition
1     2     3     4     5       1     -     -     -     -       2     -     -     -     -       3     -     -     -     -       4     -     -     -     -       5     -     -     -     -       6     -     -     -     -       7     -     -     -     -       8     -     -     -     -       9     -     -     -     -       10     -     -     -     -       11     -     -     -     -       12     -     -     -     -       13     -     -     -     -       14     -     -     -     -       15     -     -     -     -       16     -     -     -     -       18     -     -     -     -       19     -     -     -     -	6 7 8 9	losition 1 Y 1 latch Device
1     2     3     4     5       1		tatch Device
1		atch Device
2		atch Device
3     3       4     5       5     3       6     3       7     3       9     3       10     3       11     3       13     3       14     3       15     3       16     4       17     4       18     19       20     4		atch Device
5		
6		Glediator COM7 [ 1200 ]
7		
8		hannel Red 2
9		Green 0
10		Dive 1
11		
12		
13       14       15       16       17       18       19       20		Fast Patch
14		
15		Clear Patch
16         17           17         18           19         19           20         19		
17         18         19           19         20         19		
19 20		
20		
		Class

Close this window, turn on your led panel and Start the Output

Jinx! - LED Matrix Control [FPS: 25.03]							
File View	Setu	ip Help					
		Matrix Options					
		Output Devices					
		Output Patch					
		Network Options					
		Remote Control					
		Configure DVI Window					
		GUI Options					
		Audio AutoGainControl					
Channel 1.		Start Output					
None / Bla	ickou	it   None / Blackout					
Speed =		Speed					
Edit	R	Invert Edit R Invert					
Channel 1 M	Mix -						

At this point the leds on Arduino Uno will start to flash and you led panel will get black.

Choose the effect of you preference and enjoy it.