



P10 help guide

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Rob Baldwin 12

08-24-2016, 08:42 PM

P10 help guide

1 Attachment(s)

I have been helping people set up p10's as of late, some notes that I have noticed that is causing quite a bit of confusion. When using the falcon player to drive the panels here is the setups needed.

Hardware needed

P10 panels

5v power supply

if your matrix is bigger than a 3x3 you will need to extend the power cords that come with the panels - recommend 16 gauge or heavier wire.

Mounting hardware - would recommend boscoyo studio's p10 stuff for ease of use.

Check to make sure your panels come with ribbon cables and if you are doing a larger panel you may need to order longer ribbon cables. The ribbons that came with mine were 6 inch ones.

You also will need one set of the following

Either:

1 raspberry pi (note for panel sizes bigger than 3x3 a quad core is required so that would be either the pi bv2 or pi bv3) and a pi matrix adapter (<http://renard-shop.com/.../48-raspberr...x-adapter.html>)

OR

1 beagle bone green or black and a octoscroller kit several people make these and i wont link them

Both the raspberry pi and beaglebones require a micro sd card 4gb or better class 10 recommended.

You also can store your sequences and such on a usb thumb drive.

You also will need a wifi dongle for older raspberry pi's (non bv3). If you install the bbb-eMMC you can leave off the usb thumb drive and instead install a wifi dongle or you can install a usb hub to have both.

Falcon player links for installing falcon player

<http://falconchristmas.com/forum/ind...ic,2742.0.html> for Beaglebone boards

<http://falconchristmas.com/forum/ind...pic,483.0.html> for raspberry pi's

Set up in xlights/vix 3

Matrix model

Horizontal (always horizontal no matter what orientation the panels are in)

number of pixels high is the number of strings

number of pixels wide is the number of lights per string

top left start position. (note if you have issues with text being wrong when using vix 3 then swap to bottom left position and change the fpp to bottom left as well)

Set up in fpp

Channel outputs - led panels

Set the panel correctly... 2x4 is 2 wide 4 high, a 4x2 is 4 wide and 2 high

Make sure the start channel of the grid matches the start channel in xlights/vix 3... even if you have a different fpp doing other things the data still starts at that point for the p10 panel.

There is now a drop down box in fpp that asks top left or bottom left start position this was added for vixen 3 users where there is an issue with text and vixen 3 using top left for its start position. xlights users make sure its set to top left.

ok setting up the grid in fpp is the biggest source of confusion... **first and foremost...** the set up in fpp is looking at the front of the panel, so your hookups are reversed left/right when connecting at the back... the top right panel in fpp is the top right panel looking at the front of the display so connecting at the back that would be the top left one.

note the arrows on the falcon player must match the arrows on the boards as viewed from the front (left/right flip when looking at the back does apply)

If you are wanting to test the matrix with a feed from xlights/vix 3 you will need to define the matrix in e1.31

Each panel is 512 pixels and each pixel is 3 channels so 3 512 universes per panel. A 36 panel matrix is 108 universes of 512 channels just for reference.

A quick way of doing the universes is to set the universe count to 1, use your start channel as that start channel and number of channels set to 512. you can use multicast or unicast doesnt matter. Click save then set the number of universes to the number needed fpp will auto fill the rest of them in. click save again then restart the fppd. Note - you do not need to enable e1.31 output for this to work (unless you have other things your outputting e1.31 for in which case just uncheck the box next to these universes that are defined for the panel)

Here is a picture of my setup in xlights fpp and physical to show everything recapped

[Attachment 33379](#)

Rob Baldwin 12

08-24-2016, 09:53 PM

Re: P10 help guide

Just a quick followup on the post....

the raspberry pi matix adapter has 3 outputs and a max of 12 panels per output for a total of 36 panels

the octoscroller for beaglebone has 8 outputs and a max of 8 panels per output for a total of 64 panels

When running the p10 make sure you direct your fpp away from the status page this updates every second and causes a blink on the panels if you navigate away from it then close the browser it will remember that you are not on the status page.

for best picture in xlights set the contrast to 1.7 to 1.85 and the brightness to -30%.

In vix 3 add a dimming curve to the matrix in the display setup set to 70.

a more advanced way is shown in this video (DO AT YOUR OWN RISK)

<https://www.youtube.com/watch?v=QtsncYoUI30>

dyizhere

11-01-2016, 08:48 AM

Re: P10 help guide

Still learning P10s so bare with me..... I understand you need to run a separate Pi to run the P10 panels. I presume the main constraint is the length of the ribbon cables/data throughput. If there is a second Pi (pixel and P10), how do you sync the two together in your show?

Master/slave? Anything else that needs to be done in Vixen besides setup the P10 in the channel setup/preview? Can a real time clock be used on the show Pi and serve a time sync to the P10 Pi? Thanks in advance!

lightsonmontague

11-01-2016, 09:04 AM

Re: P10 help guide

Yes you would set as master slave. The master is the only one that needs time. So yes to rtc. Slaves only need to know where to be in the current sequence. It does this via sync packet from the master. Vixen config I can't help ya there.

Sent from my iPhone using Tapatalk

mikeh65

11-01-2016, 09:32 AM

Re: P10 help guide

Thank you Rob, you just answered my blinking issue. I was working on setup first then was going to look into that. Awesome review!

dyizhere

11-01-2016, 09:35 AM

Re: P10 help guide

Thanks! I think all that's left to do is get some hardware in my hands and give it a go.

Sent from my iPhone using Tapatalk

dyizhere

11-07-2016, 07:30 PM

Re: P10 help guide

I've received my panels and can make them work with the FPP test page but can't get Vixen to drive them yet. I was hoping someone can shed some light on what I'm doing wrong. I'm running a Pi with a Matrix hat from Ron.

[Attachment 34369](#)

[Attachment 34373](#)

[Attachment 34371](#)

Thanks in advance!

Quote:

*Originally Posted by **dyizhere** »*

Thanks! I think all that's left to do is get some hardware in my hands and give it a go.

Sent from my iPhone using Tapatalk

3 Attachment(s)

dyizhere

11-07-2016, 07:38 PM

Re: P10 help guide

edited above to correct the pics.

mlevings

11-07-2016, 07:42 PM

Re: P10 help guide

It looks like you need to change the start channel on the LED panels page to 1 and make sure the fpp is in bridge mode. It should play then.

dyizhere

11-07-2016, 07:50 PM

P10 help guide

Bridge mode fixed it. Is bridge the proper mode to run the slave for the P10 while using the main Pi set to master that runs all the 2811 pixels? I'll have to read up on that and do some testing. Thanks for the help!

Sent from my iPhone using Tapatalk

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