Pixout ArtNet DMX Recorder

User Manual (ver2)

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Data	Page	Description
19 Feb 2020	1	Initial document version
10 Mar 2020	36 37 21	ArtNet DMX triggering universe numbering starting from 0 Changed ArtNet DMX triggering playback Introduced FPS grabbing and custom FPS
11 Aug 2020	many	Pixout version 2.x
05 May 2021	50	Changed download link for firmware image, Version2
27 Dec 2022	50	Changed download link for firmware image, added RPI 3B+ support
17 Mar 2023	50	Added RPI 4/CM4 support
18 Jul 2024	37	Added GPIO triggering policy
23 Aug 2024	39	Added Serial (UART) triggering

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1. OVERVIEW

Our company vision - simple and user-friendly remote control interface adopted for both novice and tech savvy users, small size and cost effective device for outdoor usage with good performance resource. Based on this vision, we've created Pixout ArtNet Recorder.

What it is

Pixout ArtNet Recorder (hereinafter – the Recorder) is *a standalone, small sized, ArtNet DMX recorder device designed for the outdoor environment*.

What it does

It grabs ArtNet DMX sequences from software/hardware source, saves it internally and plays it back as indicated.

You can remotely manage DMX sequences and adjust settings from Control Panels using web browser or mobile device.

Key features:

- IP68 Standalone Recorder
- Triggering (Schedule/GPIO/MIDI/ArtNet DMX)
- Zones
- Up to 64 ArtNet DMX universes
- Remote control (Android/Apple/Web/API)
- High reliability for architecture, museums, art spaces and other objects

How to do it

Connect the Recorder to your PC and use your favorite software to create your own ArtNet sequences. Another option is to use MIDI / Lighting Desk to compose sequences.

Tested software

The Recorder was tested using following software:

- Madrix
- Jinx!
- grandMA2

- Gledіator
- MagicQ
- MadMapper

Package includes

- IP68 Pixout ArtNet Recorder / Model S-100
- IP68 Power Supply
- IP68 RJ-45 plug
- IP68 Extension cable with EU/US plug
- User Guide
- Carton box

Warning! Use only supplied parts for mounting your Recorder. 3rd-party PSU or connectors might damage the Recorder's hardware.

Warranty is not applicable in case of using the Recorder with non-supplied parts.

There are boxed and unboxed versions of Pixout ArtNet Recorder.

Boxed version is ready-to-use from the box. Please find the manual about connection in the section CONNECTION.

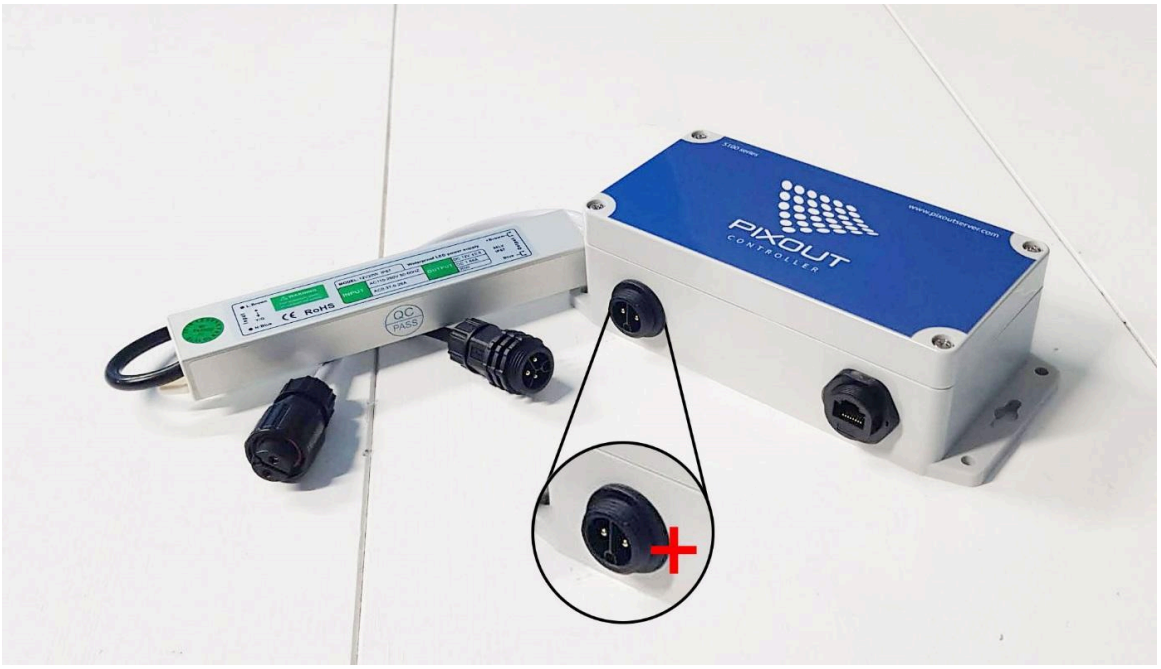
Unboxed version is built for those who want to assemble their own system, but need stable software/firmware, which would work flawlessly.

We have various licensing options, which allow you to purchase a license for the number of universes you actually need. Please find detailed information about licensing policy in the section LICENSING

2. WARNINGS

It is extremely important to check the following details while setting up connection for the Recorder.

Check DC polarity in case you'd like to use your own PSU or make any modifications or integration.



1. Check voltage and use provided PSU only

2. It is critical for outdoor usage to use a correct RJ45 IP68 connector.

IP68 connector for Ethernet patch cord comes with the package.

You can use 3rd-party PSU or connectors at your own risk.

3. CONNECTION

There is an extension cable with EU or US plug (NEMA 5-15P) on one side and a 3-pin female connector on the opposite side of the package.

1. Connect extension cable 3-pin female with PSU 3-pin male.

Unplugged

Plugged

2. Connect Ethernet male connector with the Recorder's female connector.

Unplugged

Plugged

Power ON! Let's go!

4. HOW TO START

Default network setting

Out of the box your device has following default network settings:

Ethernet connection:

IP: 2.0.0.230 **MASK:** 255.0.0.0

Wireless connection:

IP: DHCP **ZeroConfig:** http://pixoutserver.local

Connection setup

To connect to your Pixout ArtNet Recorder:

1. Connect the Recorder to PC with Ethernet cable
2. Power up the Recorder
3. Setup static IP on your PC with the following values:
   - IP - 2.0.0.* **(except 230)**
   - Mask - 255.0.0.0
   - Gateway - 0.0.0.0
4. **Unboxed devices only** - Wait for about 5 minutes until the system is initiated for the first time
5. Type URL http://2.0.0.230/px-admin/#/network in browser address bar
6. Specify your wireless router connection data (SSID/PSK) in Admin Panel - http://2.0.0.230/px-admin/#/network
7. When device is successfully connected to the wireless network, you can access it by ZeroConfig URL name http://pixoutserver.local
8. User Panel is available at http://pixoutserver.local
9. Admin Panel is available at http://pixoutserver.local/px-admin.

USEFUL INFORMATION

If you use Microsoft Windows, you need to setup Bonjour drivers first to support URLs like http://pixoutserver.local in your browser. You can download Bonjour for Windows here: http://pixout.lighting/product-pixout/pixout-the Controller-downloads/

ATTENTION

Direct connection is intended for initial configuration and for sending / receiving data with ArtNet protocol. For routine work please connect by wireless and use http://pixoutserver.local

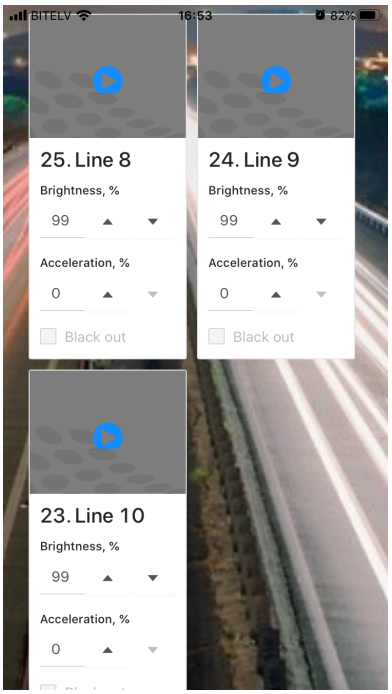
5. MANAGING YOUR RECORDER

Access Control Panel

Manage your Recorder's performance with Control Panels. Access Control Panel via any web browser installed on your PC/Mac or mobile device (iOS/Android).

There is an application for mobile devices, enabling easier access to the User Control Panel.

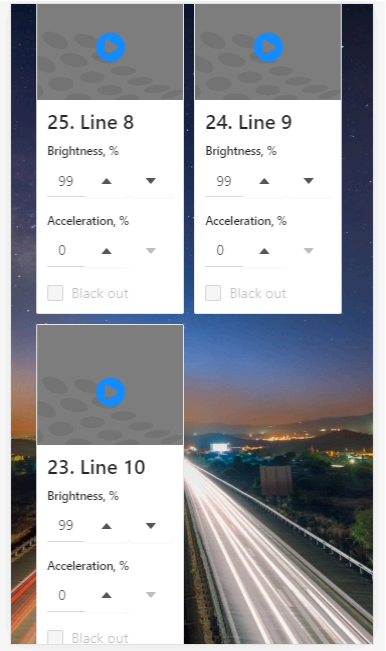
For iOS: click to download



Application gives access to the User Panel via LAN or WAN. On first boot up you will be asked for LID – this is the Recorder's ID, you should use it to access your device. There is an option to request your own LID from our Support Team via support@pixoutserver.com. Or use default one:

Default LID: **local**

For Android: [click to download]



This application gives access to the User Panel from LAN only and there is no need for LID – simply connect to the Recorder by predefined address http://pixoutserver.local and start working.

6. CONTROL PANELS DESCRIPTION

There are two types of access:

- User Control Panel
- Admin Control Panel

6.1 USER CONTROL PANEL

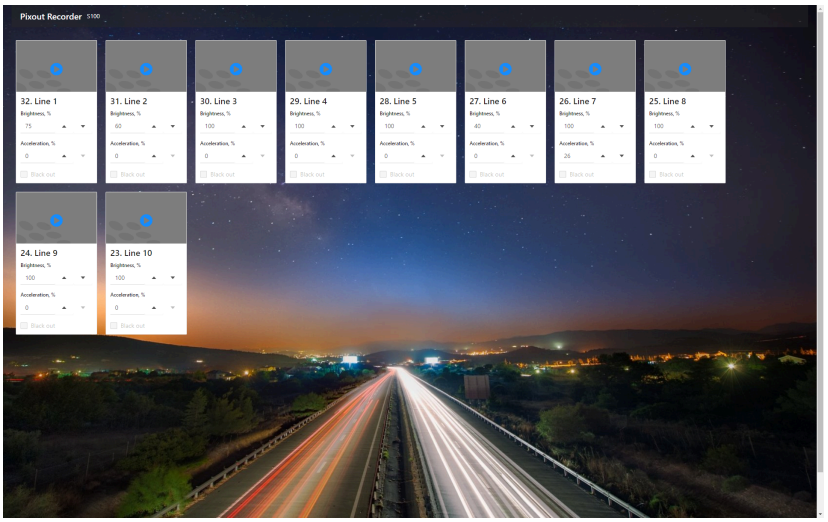
Use the User Control Panel to adjust brightness, speed, choose cue and start/stop playback. The User Panel has an info bar and a list of cues you can manage.

Access to User Control Panel: http://pixoutserver.local

User Control Panel allows to control:

- brightness level
- speed level
- blackout
- play/stop cue

Handle these processes by clicking corresponding control and adjust playback speed and brightness. Blackout function might be used to decrease brightness to zero level and stop playback immediately.

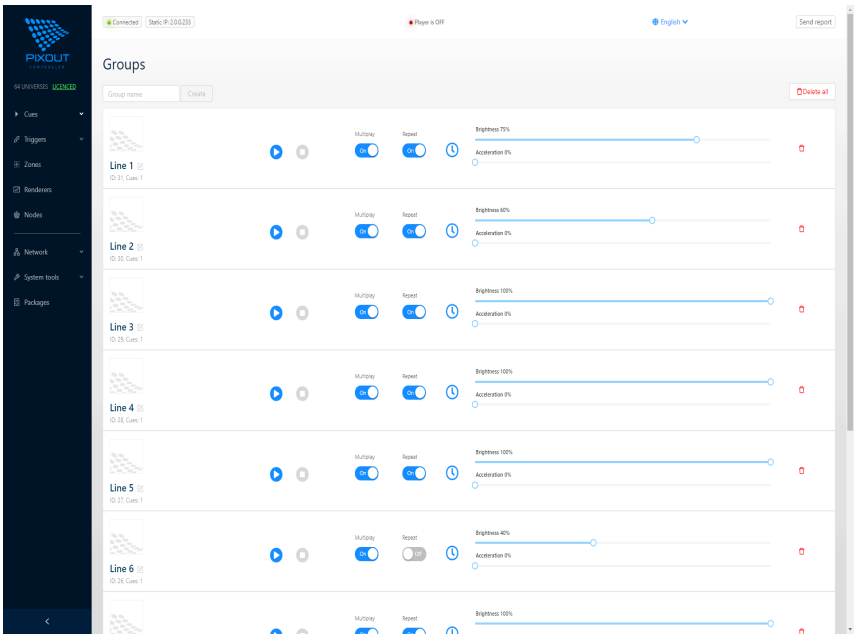


6.2 ADMIN CONTROL PANEL

Admin Control Panel is for experienced users only. It has some features that can affect performance and productivity of the Pixout ArtNet Recorder. You should have an understanding of all working processes and be able to handle errors.

Access to Admin Control Panel: http://pixoutserver.local/px-admin

Here you can set up the Recorder, configure network, prepare cue for playback, import/export cues, start/stop cue, check system logs and access other features.



Status bar

The main screen has a status bar on the top side of the screen.

Green icon Player is ON indicates that there are no errors and the cue is playing. Red icon shows that the Recorder stopped/no connection/error and cue is not playing stopped/no connection/error.

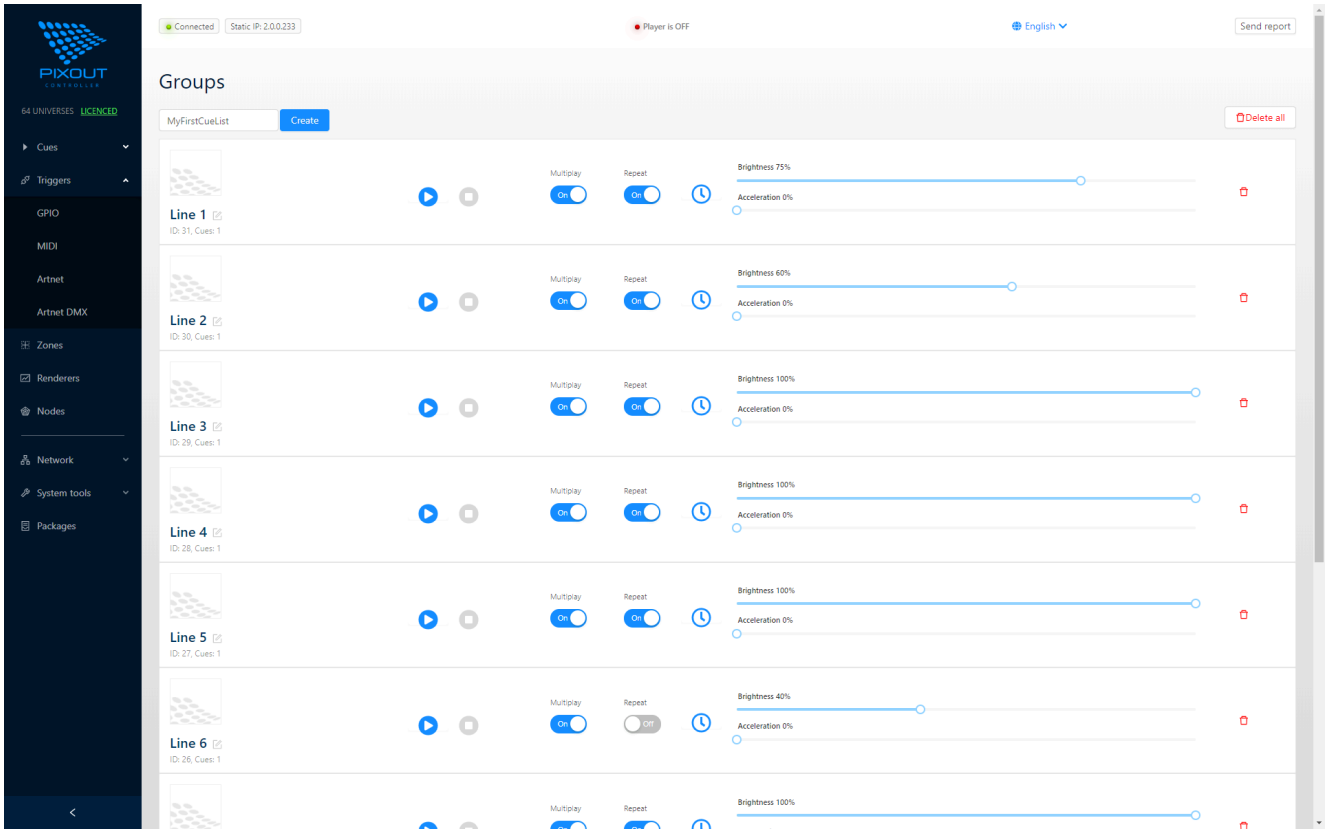
Page	Description
/Cues	Cues import/export and preparing cues for playback
/Triggers	Managing cues with triggering
/Zones	Zone functionality allows to mix DMX channels from two different cuelist at once
/Renderers	Available renderers
/Nodes	Manual/Automatic detection of any Art-Net node
/Network	Network configuration for access to the Recorder
/System Tools	System utilities: time, system restore, logging
/Packages	List of installed packages

6.2.1 CUES

In this section you can make modifications, import or export cuelists.

Creating a cuelist

In the Cues -> Groups section enter a new cuelist name in an input field and press Create button.



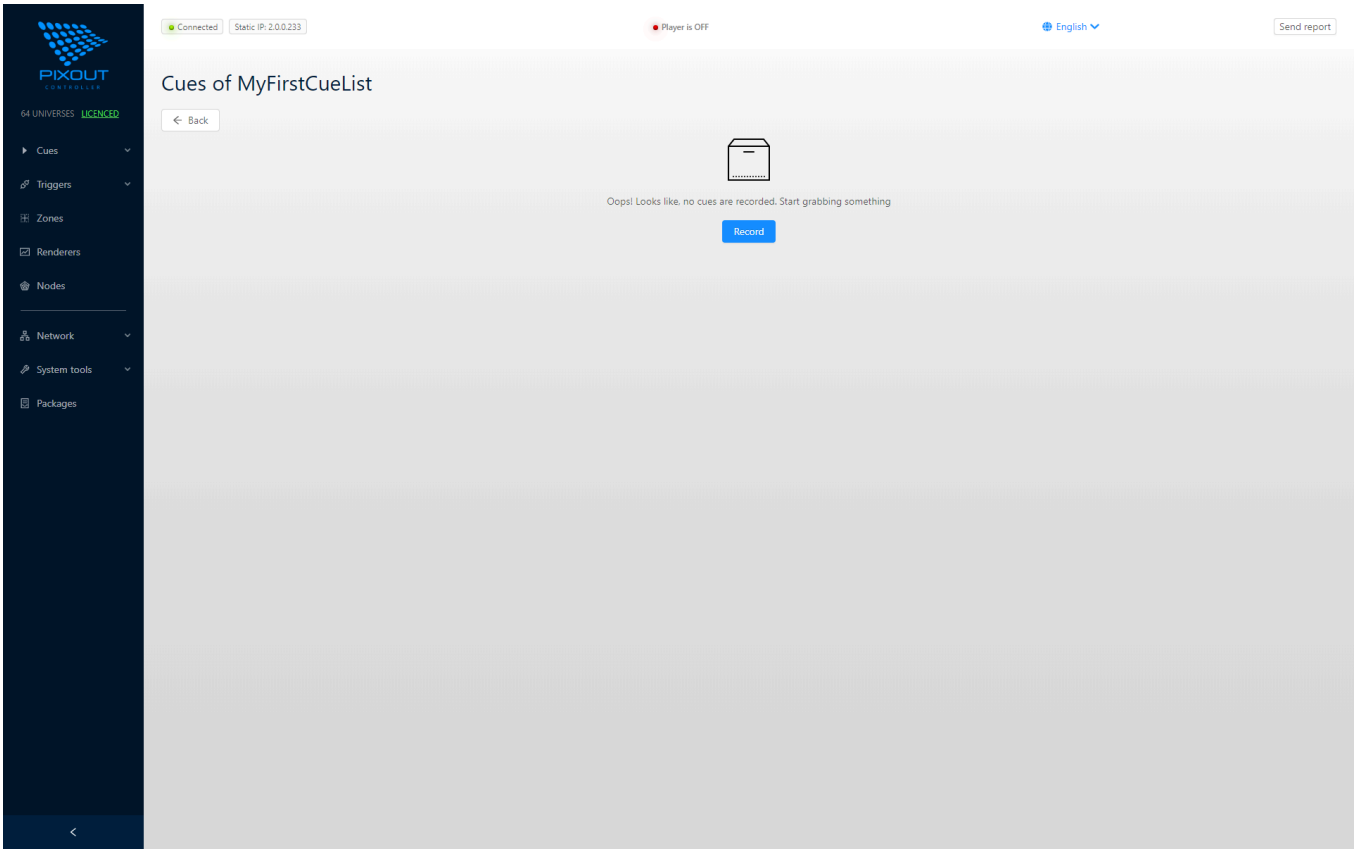
Each cuelist has following options

- Name
- ID / how many cues inside
- Picture
- Play/Stop buttons
- Multi/Single play - this cuelist will work simultaneously with other multi cuelist(s) or not
- Repeat in a loop or not
- Scheduler
- Speed/Brightness
- Delete

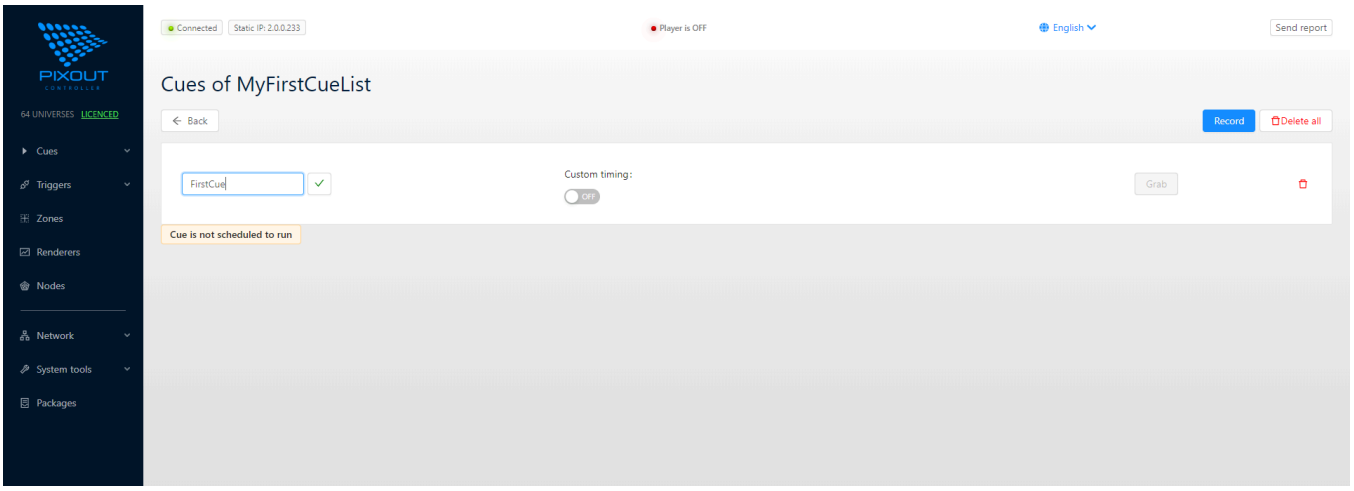
> **ⓘ USEFUL INFORMATION**
>
> Cuelist names may be edited afterwards by clicking on the pencil icon.

Recording a cue

Now you have your own cuelist, but it is still empty. You need to record data from any ArtNet source. Select your Cuelist by clicking on its name or image.



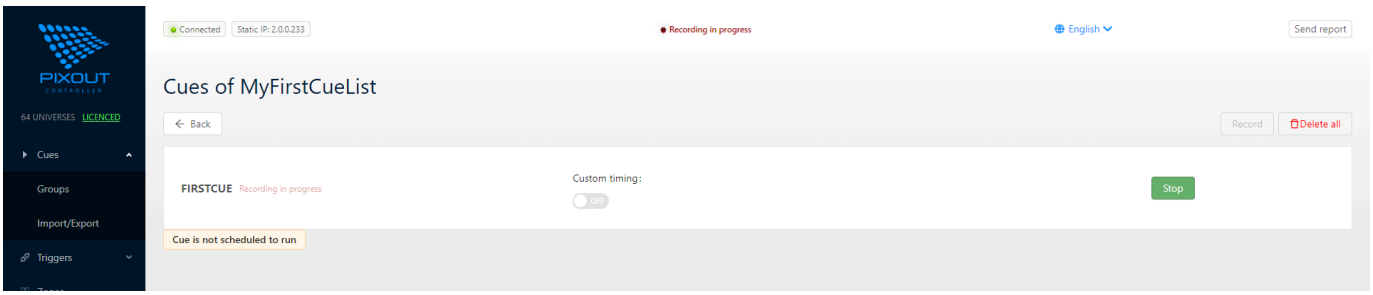
Press Record button to setup new cue. Name your cue, and click the Grab button on the right of your cue. FPS will be grabbed from your source by default.



In case you would like to specify custom FPS so please uncheck ‘Custom timings’ switch and specify FPS. It should be the same as a source provided by the device. PPF is usually equal to universes count.

You can see the “Waiting for data” message after pressing the Grab button, which means that no data received and the Recorder is in a waiting state.

After ArtNet sequences reach the Recorder, you will see a message "Recording in progress"



You need to send ArtNet data from your software / hardware to the Recorder by broadcast or unicast address (2.255.255.255 / 2.0.0.230 accordingly) UDP port 6454 or use Auto node discovering.

ArtNet sequences recording may be stopped by clicking the Cancel button. Repeating the previous steps, you can record as many cues as you need.

> ❗ **USEFUL INFORMATION**
>
> If ArtNet DMX Triggering is enabled, recording will be started/stopped by triggering events only.

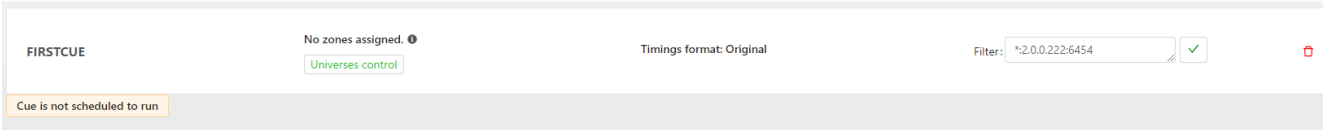
Total amount of cues and cue lists limited only by SD flash size. The provided SD card has a capacity of 8 GB and may be increased in size on demand. At the moment we have limitations per one recorded cue. Maximum recorded length for one cue **for 64 universes (30fps) is 10 min.**

If you need to record a very long cue for more than 10 min, please split it into two or more parts.

Cue or cuelist can be removed with the help of button or Delete all.

Cue output filtering

Filter recorded cue output by universe and specify IP for each universe or broadcast.



If you need to filter universes to different IP(s), please follow the syntax below:

`Universe:IP:UDPport`

Where:

`Universe` – Allowed characters [0123456789*]. Universe starting from 0 (e.g. in case of 64 universe first universe will be 0 and last 63). Wildcard character means all universes.

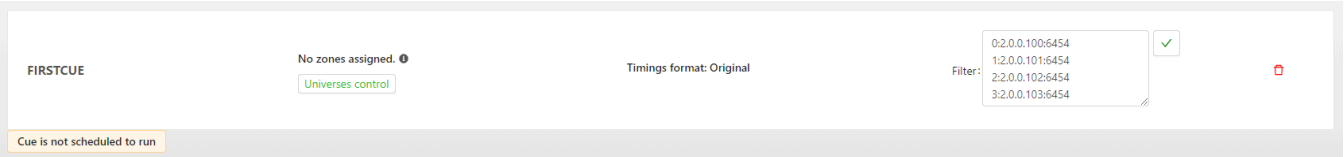
`IP` – Any allowed IP addresses

`UDPport` – ArtNet UDP port (usual 6454)

Examples:

`0:2.0.0.100:6454` – Send universe 0x00 to IP
`1:2.0.0.101:6454` – Send universe 0x01 to IP
`2:2.0.0.102:6454` – Send universe 0x02 to IP
`3:2.0.0.103:6454` – Send universe 0x03 to IP

Note! For backward compatibility reasons, universe numbering starts from 0.



Universe duplication is allowed. You can send the same universe as many times you like to a different IPs.

❗ **USEFUL INFORMATION**

Please check if IP exists before sending data to it. In case of sending data to non-existing IP, the overall sending process would return an unexpected result.

Universes can be duplicated. For example send one universe to two

different IPs, if you want the same effect on different ArtNet nodes.

Examples:

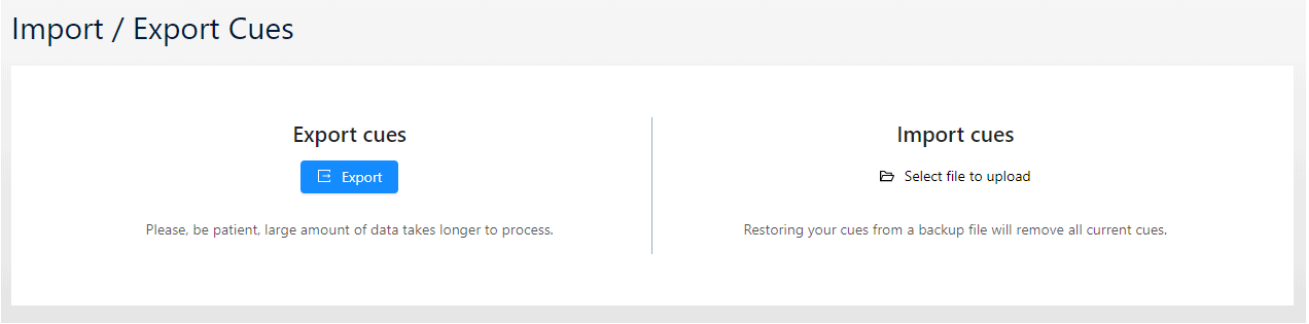
`0:2.0.0.100:6454` – Send universe 0x00 to the IP 2.0.0.100
`0:2.0.0.101:6454` – Send the same universe to another IP 2.0.0.201

❗ **USEFUL INFORMATION**

If the filtering box is empty, the Recorder will send universes to address specified by default, depending on your unicast settings. So if you specified two universes out of four, two universes will be unicast and two by default depends on your unicast settings.

Universe / IP / port filtering in cuelist settings will have a universe range starting from 0 (not from 1) – if user inputs "1:0.0.0.0:1234" – it will mean universe 2 is filtered to IP 0.0.0.0 on UDP port 1234.

Cuelist import and export

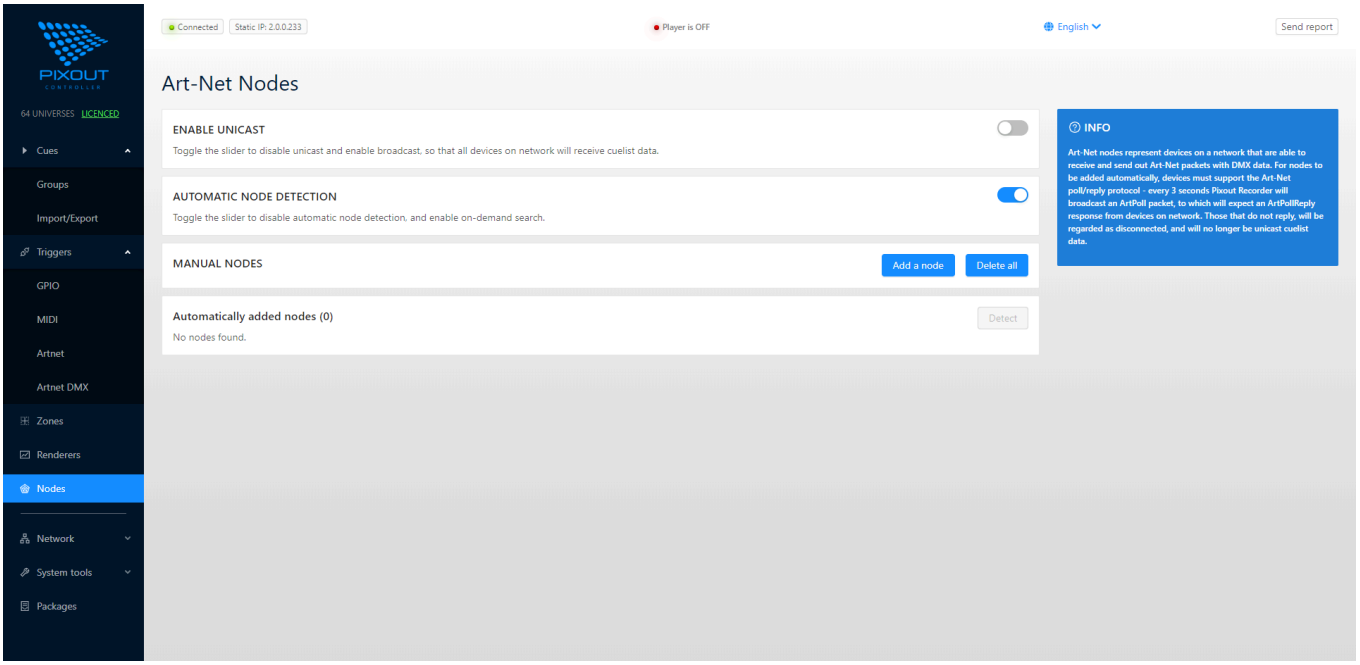


You can import or export your cues onto external device, such a PC, with Import and Export buttons.

> **USEFUL INFORMATION**
>
> If cues are long, for example, longer than 5 min, the process can take some time. Please be patient.

6.2.2 NODES

Art-Net Nodes search for all available devices on local networks, which support Art-Net poll/reply protocol and are able to send/receive Art-Net packets with DMX data.



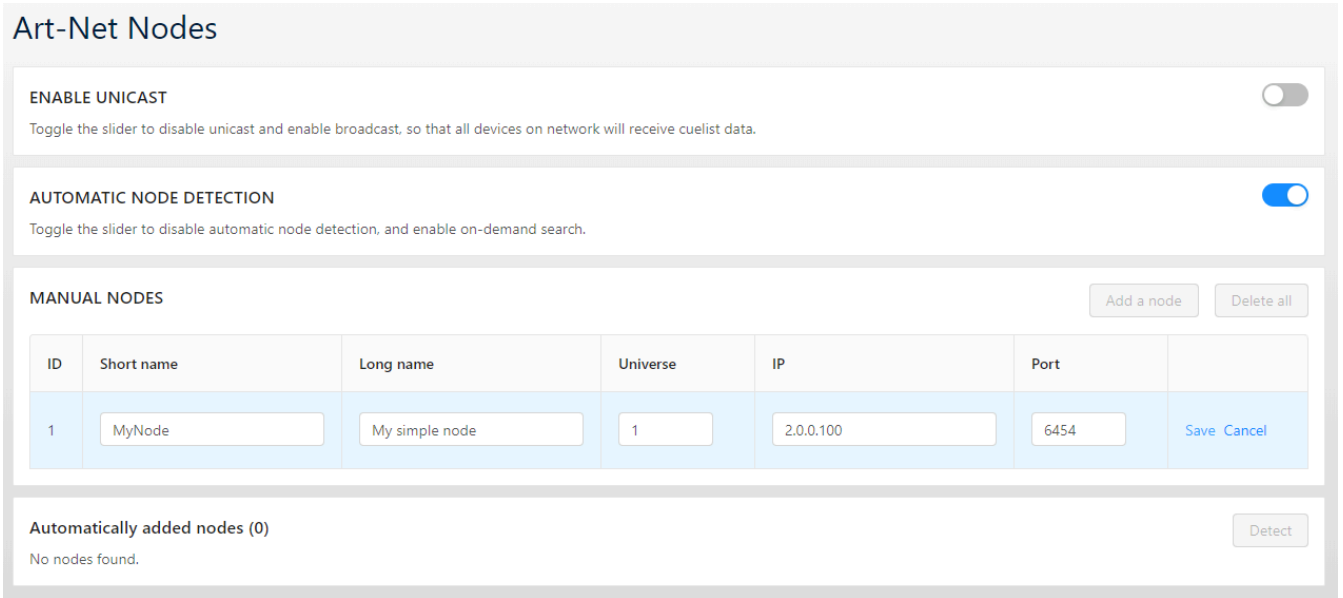
When the slider ENABLE UNICAST is in Off position, a unicast is disabled and broadcast is activated. In this case the Recorder will broadcast an ArtPoll packet every three seconds and wait for ArtPollReply from any device on the network. In case of no response from the device, this device will be regarded as disconnected.

When the slider is in On position, a unicast is active and broadcast is disabled. In this case all data will be sent to unicast IPs by default. If you want to change unicast behavior, use the filtering option. For more details check the section CUE OUTPUT FILTERING

> ❗ **USEFUL INFORMATION**
>
> Even when slider On/Off, the Recorder will reply with ArtPollReply by ArtPoll request from the 3rd party software.
>
> Art-Net Nodes will show universe values as +1, which means that universe 0 will be shown as 1, universe 1 will be shown as 2, etc.

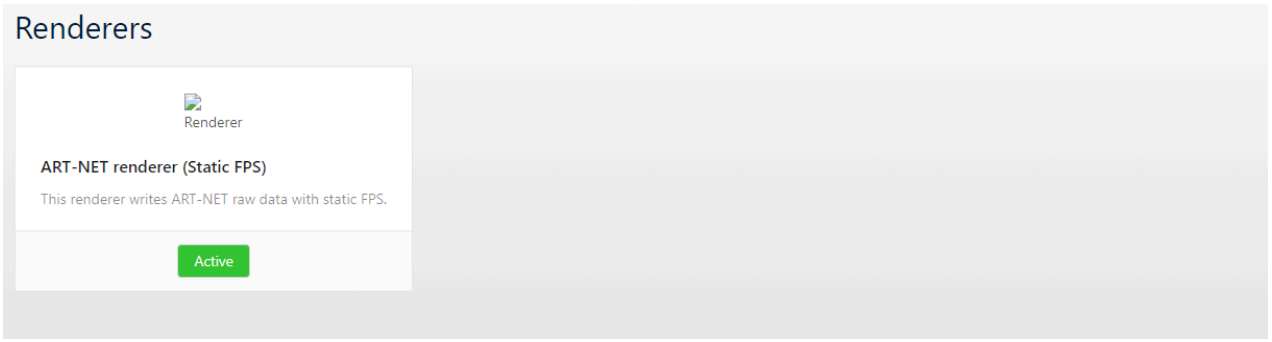
When the slider AUTOMATIC NODE DETECTION is in On position, all found/lost nodes will be appended/removed to the list automatically. In case you would like to refresh nodes manually, switch the slider to Off position and use the button Detect for manual nodes poll.

Together with automatic nodes detection, you can user MANUAL NODES options. It allows users to specify nodes without ArtPoll support.



6.2.3 RENDERS

The Recorder is a highly modular system with the possibility to adopt for any business needs. The Render module is used to unicast/broadcast recorded ArtNet flow to the Ethernet.



6.2.4 NETWORK

Configure your Recorder to have access by wireless or direct connection.

Wireless connection

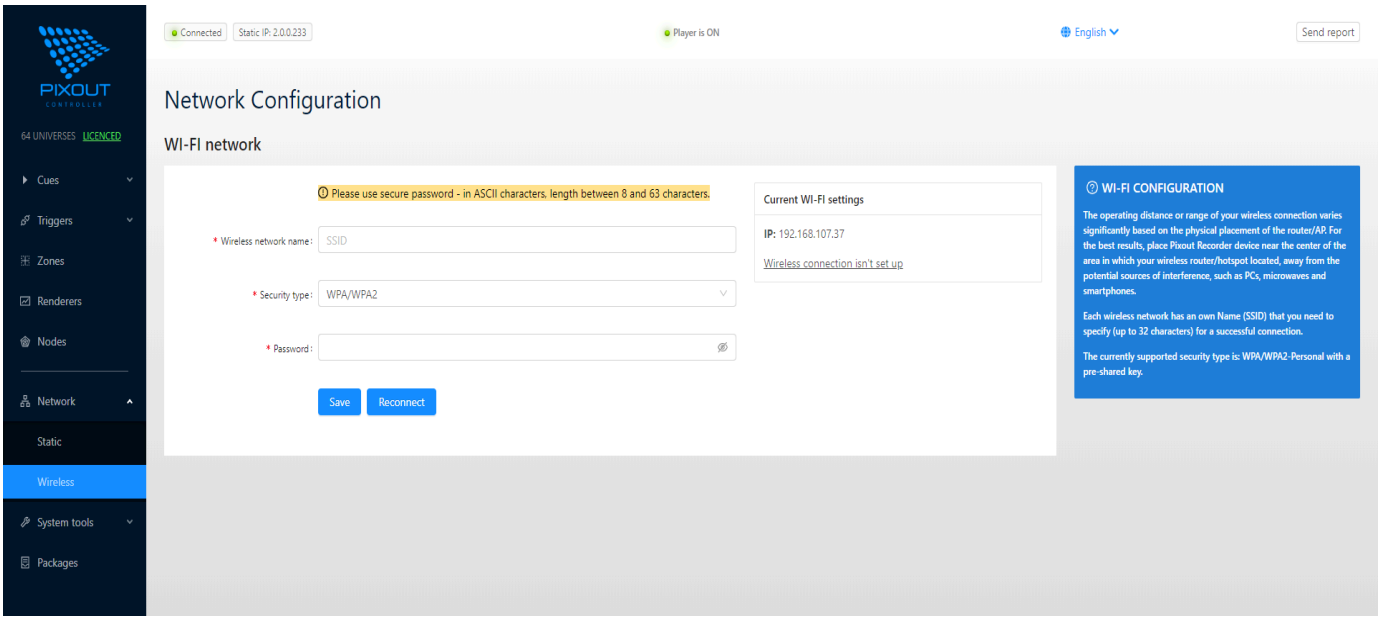
Wireless connection is very important for the Recorder. You can work with the Recorder using wireless connection even if it broadcasts huge ArtNet data.

Wireless connection is used in the following cases:

Remote control – using mobile application (Pixout Remote) or web browser;

Sends log information to the Pixout company server – in case of any errors our Support Team can find the root cause based on provided logs;

Automatic updates – every time the Recorder is turned on, it will check for updates directly from our server, if the Internet network is accessible.



Please specify your router SSID name and password and the Recorder connects as a client.

❗ **USEFUL INFORMATION**

If you are using Microsoft Windows, you need to setup Bonjour drivers first to support URL like http://pixoutserver.local in the browser. You can download Bonjour for Windows here:

http://pixout.lighting/product-pixout/pixout-the Controller-downloads/

When the device is successfully connected to your WiFi network, you can get access to it by DNS-SD URL name http://pixoutserver.local.

Use http://pixoutserver.local for User Panel and http://pixoutserver.local/px-admin for Admin Panel.

USEFUL INFORMATION

Use AES security method in your router to protect your devices.

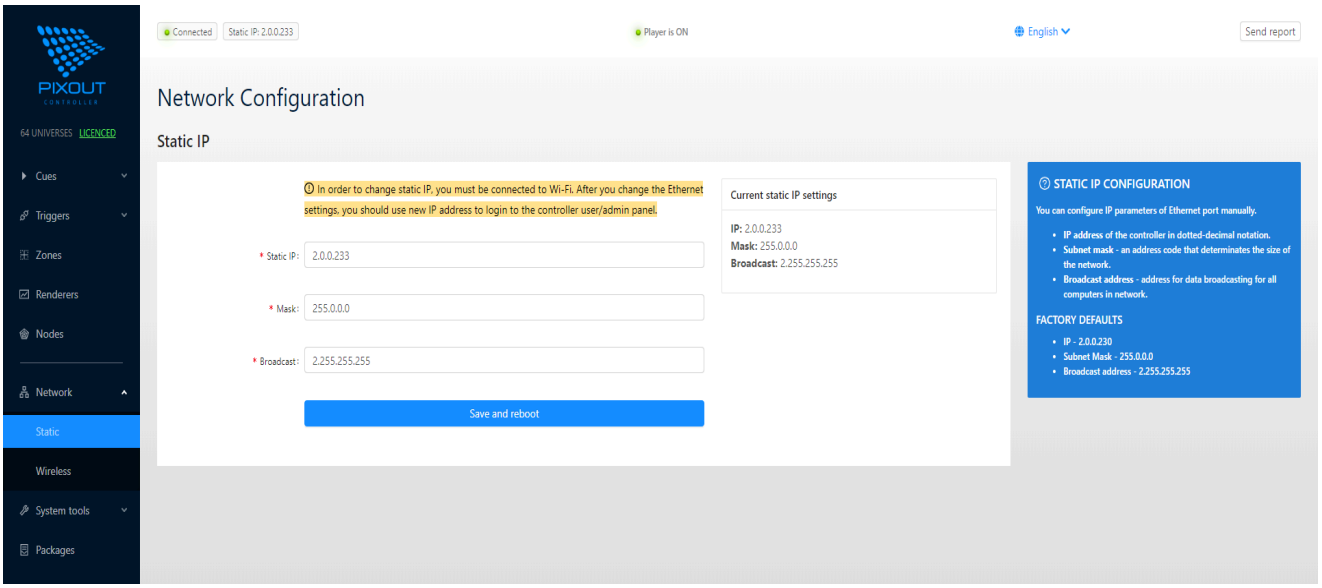
Ethernet static IP configuration

You can configure IP parameters of Ethernet port manually.

Enter a new **IP** address of the Recorder in dotted-decimal notation.

Subnet Mask – an address code, which defines the size of the network.

Broadcast address – an address for data broadcasting for all devices in the network. This address should be specified accordingly to subnet mask (e.g. for 2.0.0.x / 255.0.0.0 it is 2.255.255.255).



> ❗ **WARNING**
>
> If you want to change static IP, make sure that you have configured wireless connection. In case of any errors, you will still have access to the Recorder's Admin Control Panel using wireless connection. After you change the Ethernet port address, **you must use a new IP address to login to the Recorder's User/Admin Control Panel.**

6.2.5 SYSTEM TOOLS

System tools are used to figure out what happens inside the system, restoring factory settings if needed, and also for synchronization.

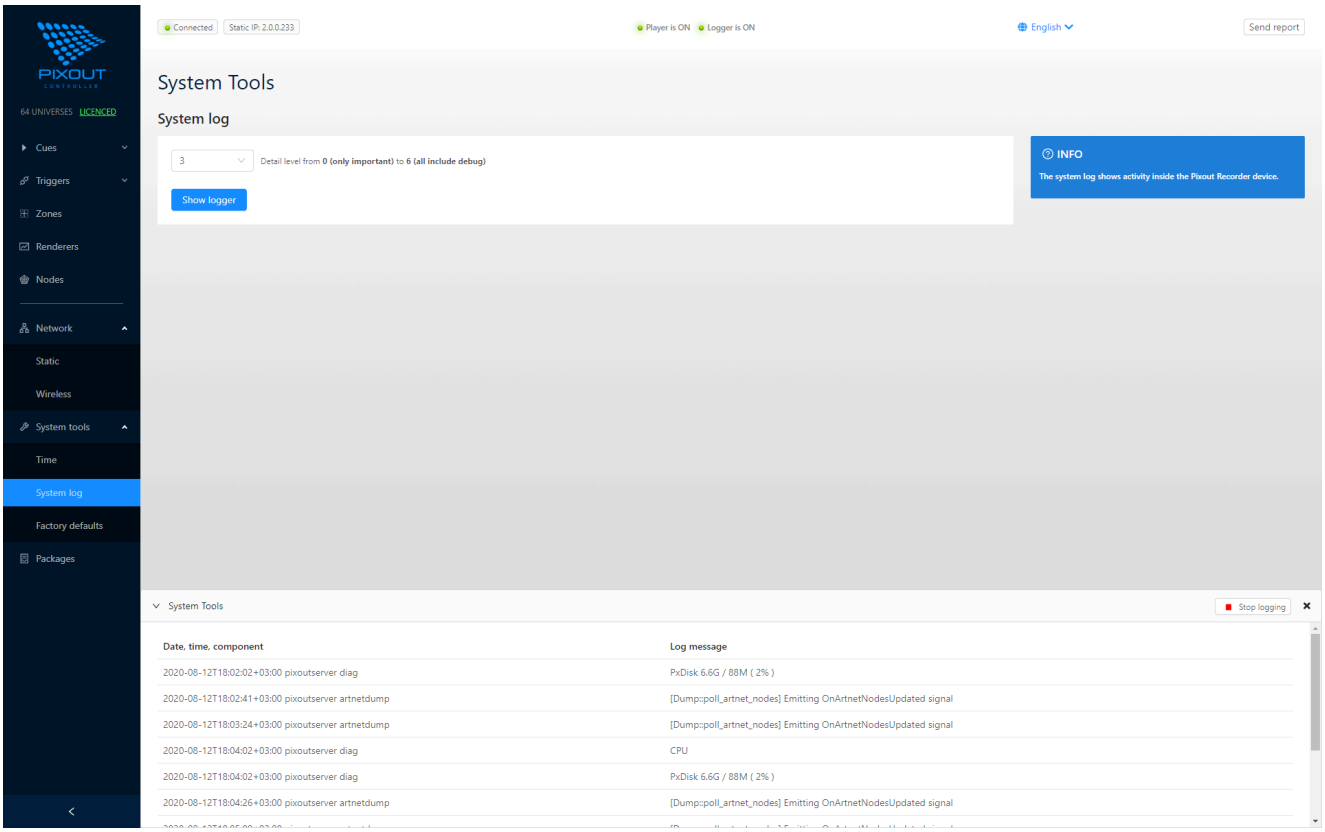
Time

This section is used to synchronize time on your Pixout Recorder with time on your web browser. Click the "Synchronize" button and you'll have the same time on both. Synchronizing is very important for scheduling cues playback.

System Log

Click the "Show" button in the System Log tab to get detailed log information from the Recorder. This information can be sent to the Pixout Support Team if needed.

Log window will be visible at all times while browsing pages. You can minimize it (it will keep logging), stop or restart logging by pressing corresponding buttons.

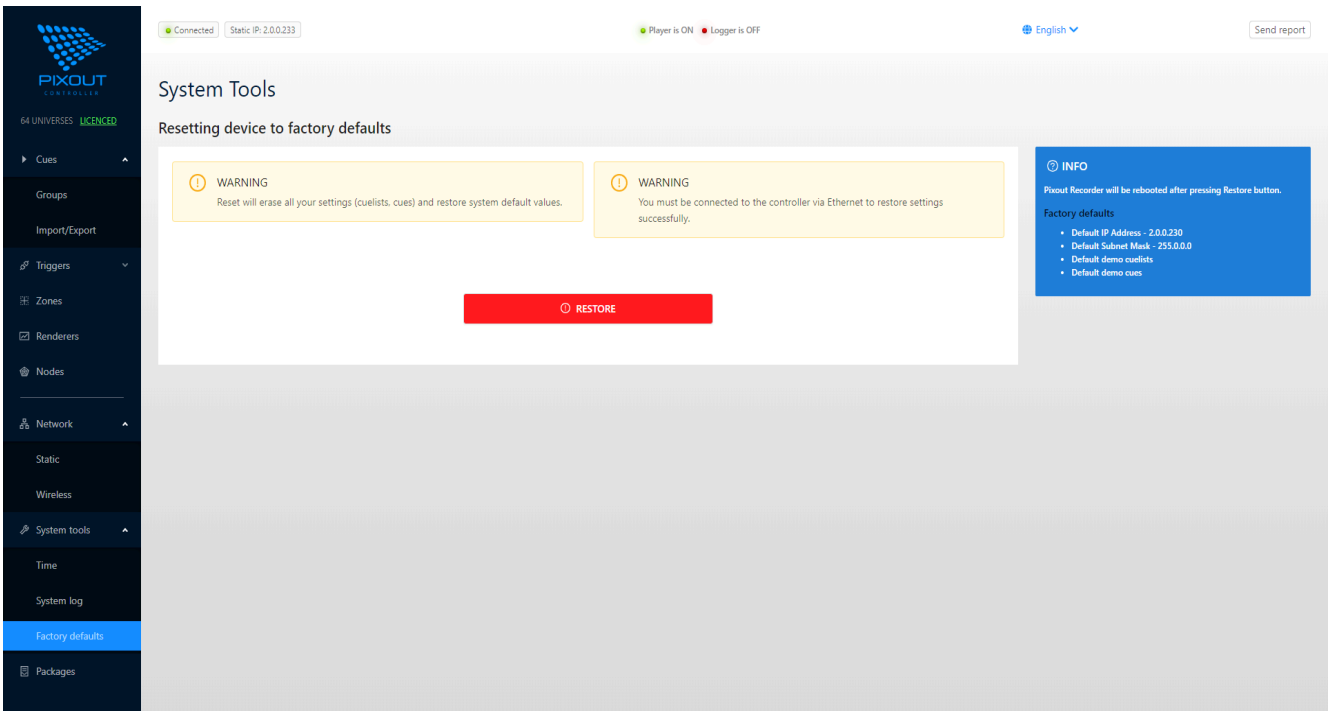


There are 2 ways to send SystemLog to manufacturers' support. Logs will be sent automatically, if there is an internet connection.

1. You can copy SystemLog information and send it via email to support@pixoutserver.com, if you are not connected to the Internet,.
2. Click on Send Report button in the header and send the last 1kB of system data to our Support Team.

Restore

If the system has become unstable or the file system was damaged, you can do a full system restore. It will reset the Recorder to the factory settings and restore the damaged file system. Please be patient, it could take 5 minutes or more.

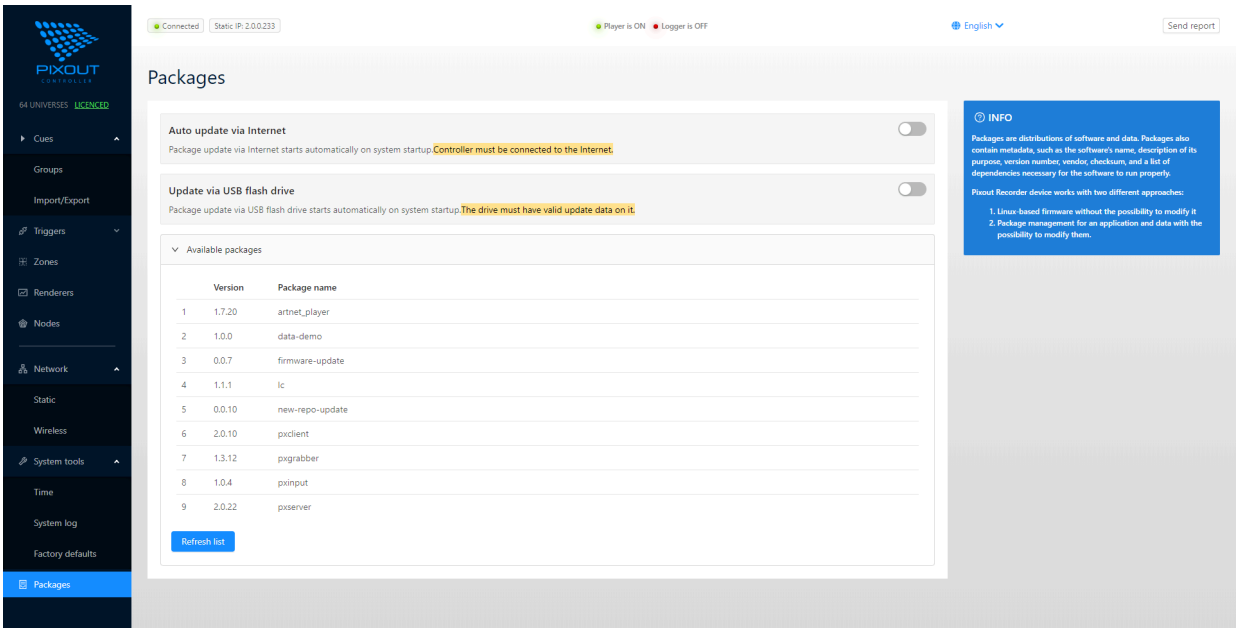


USEFUL INFORMATION

Do not reboot your system until it has finished restoring.

6.2.6 PACKAGES

Due to the modular nature of the Recorder software, all system components are located in packages. Packages can be upgraded automatically from our server on system startup or manually. Every package has its own version and name.



USEFUL INFORMATION

All Recorders are provided with turned off Auto Update via Internet. Please check this setting (it should have Off position) before supply to an end-user. Turned on Auto Update with Internet connected may start updating system packages and it can affect ArtNet data proceeding.

Currently update via USB flash is available for unboxed version only.

6.2.7 TRIGGERS

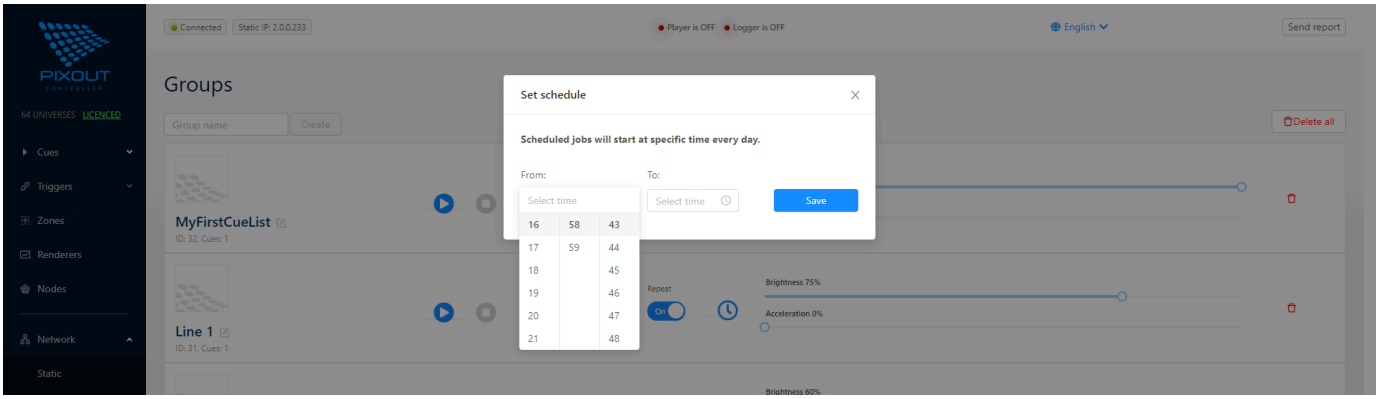
Triggering means managing start, stop, intensity change of your cuelists by external event.

Trigger Recorder with the following methods:

- Time schedule
- ArtNet, ArtNet DMX, GPIO trigger
- MIDI
- Web panel – simplified for end-users and advanced for admins
- iOS / Android application

We can adapt our software to UDP triggering in short term on demand.

Time Scheduler



You may schedule activity for every cuelist. You should go to **Cues -> Groups** and click the clock icon. In the opened window specify hour, minute and second for start and stop selected cue. You can't specify the date, so the cuelist will be scheduled for the mentioned time every day: if you specify 17:45 start time for cuelist, it will start playing at this time every day.

❗ **USEFUL INFORMATION**

Pixout ArtNet Recorder S-100 doesn't have a real time clock and to sync time you need to have wireless connection to the Internet or make manual time sync from System Tools page every time after you switch on the device.

ArtNet

Art-Net triggering allows you to play or stop specified cuelist using Art-Net trigger command (ArtTrigger).

- Key = 1, Subkey = (cuelist number) – Play cuelist
- Key = 2, Subkey = (cuelist number) – Stop cuelist
- Key = 3, Subkey = (intensity value) – Set intensity

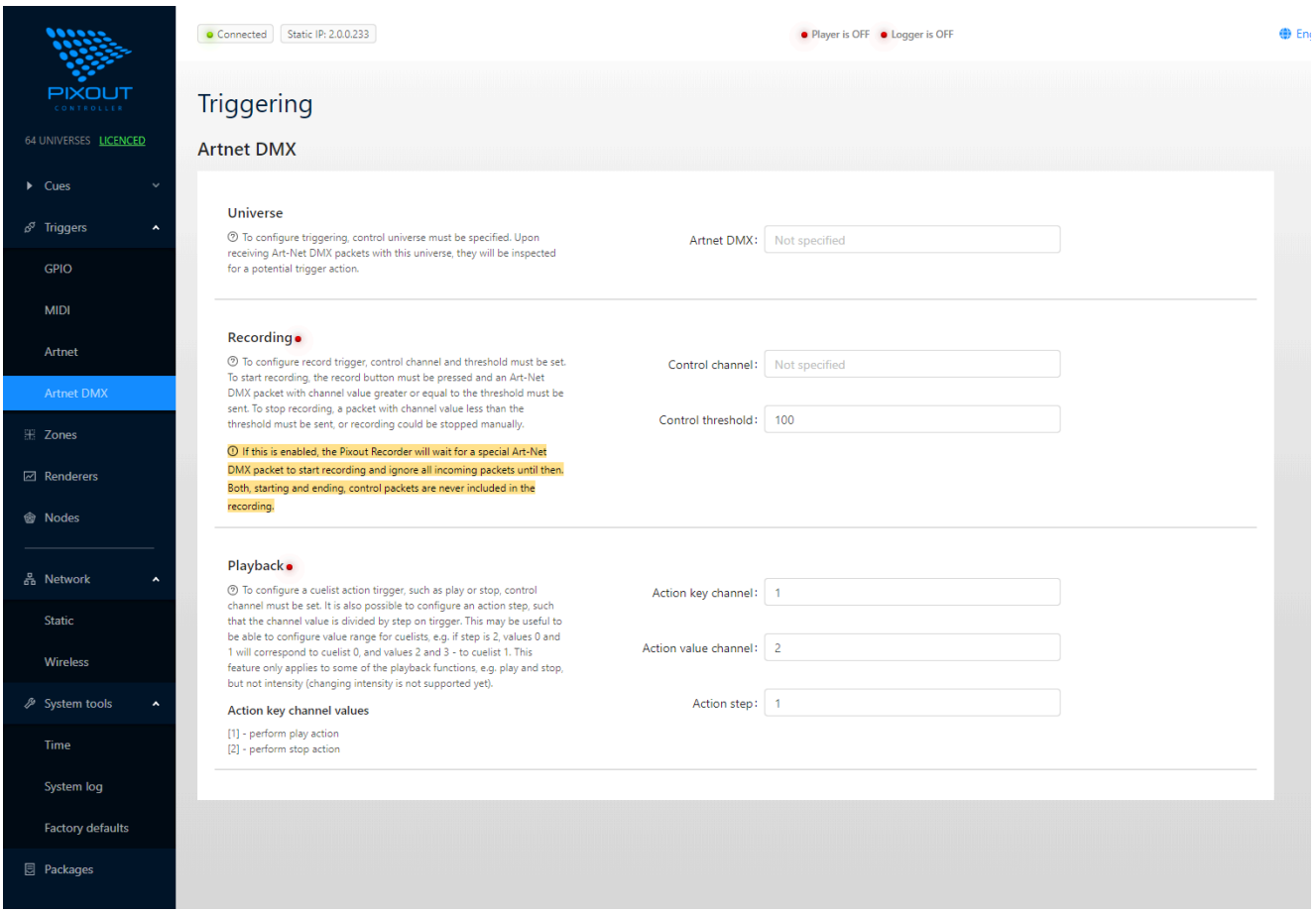
You can check ArtNet triggering with DMX-workshop software, yet this approach is very rarely used:
https://artisticlicence.com/product/dmx-workshop/.

ArtNet DMX

Another option is to trigger the cuelist by DMX value inside the ArtNet package. You should define the exact universe first. Set the **General -> Universe** to value in range 1–32767. This will specify the universe from the packet that The Recorder will interpret as a trigger.

Recording

Cue recording start/stop is triggered from outside by the Artnet DMX package.



1. Set *Recording -> Control -> Channel* to value in range 1–512

This specifies the channel in a packet that The Recorder will inspect to start or stop recording.

2. Set *Recording -> Control -> Threshold* to value in range 1–255

This specifies value that controls whether recording is to be started or stopped. If the Recorder receives a packet with channel value equal to or greater than this setting, it starts recording; if less, it will stop recording.

The Recorder is configured to start/stop recording using ArtNet DMX trigger, when both sections filled shows ON icon.

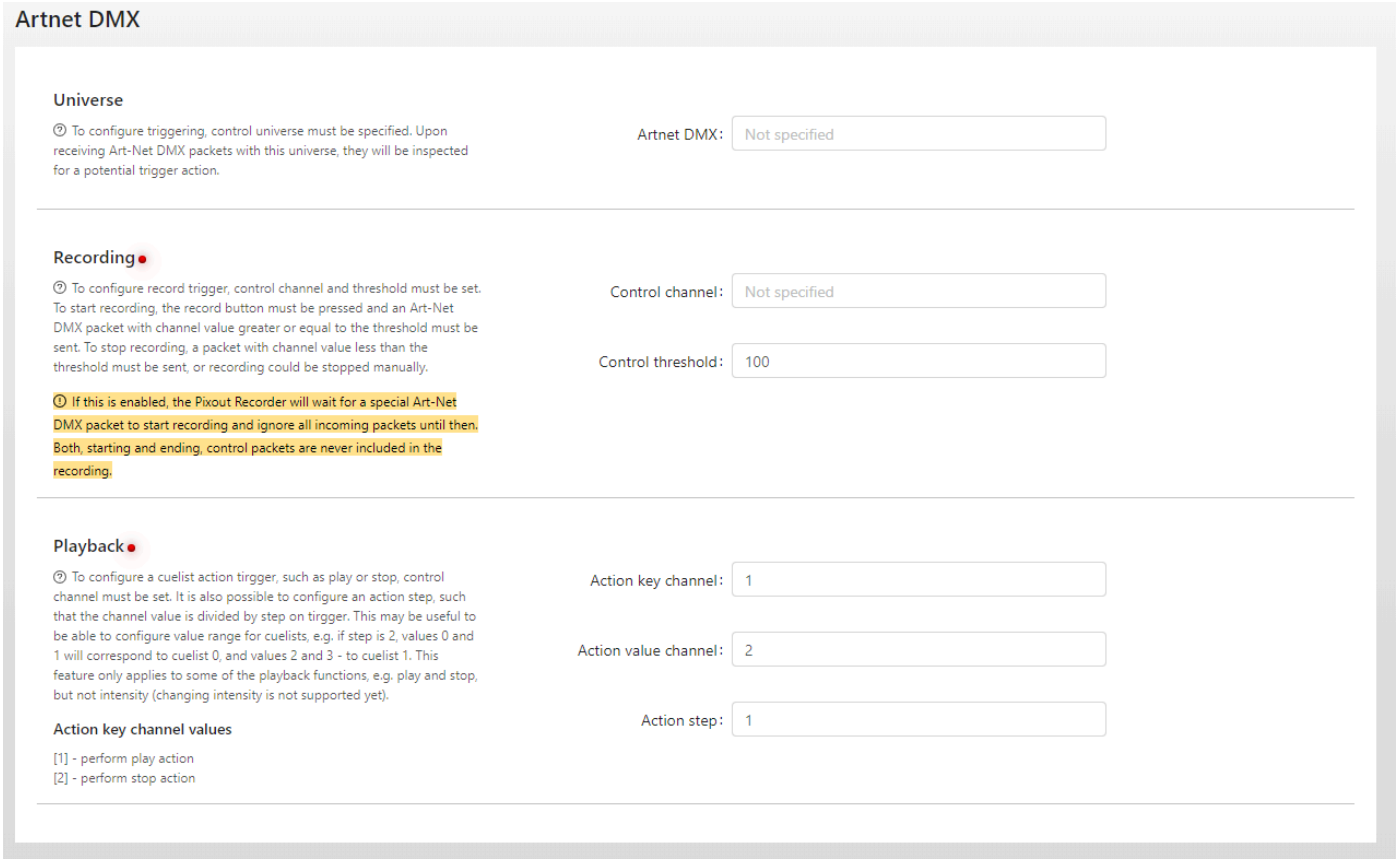
To start recording,

1. Go to Cuelist section
2. Select prepared cuelist
3. Click the “Record” button.

Now the Recorder is waiting for ArtNet data. Please find more detailed information about this in the section CUELIST.

Playback

Cue Playback functions like Start/Stop/Intensity are triggered externally by the Artnet DMX package.



This section has 3 fields:

1. Action channel
2. Action value channel
3. Action Step

In action channel specify DMX channel for triggering, in Action value channel specify DMX channel for triggering parameter value.

In the first DMX channel you need to send value 1 for play or 2 for stop. In the second DMX channel value should be specified cuelist ID.

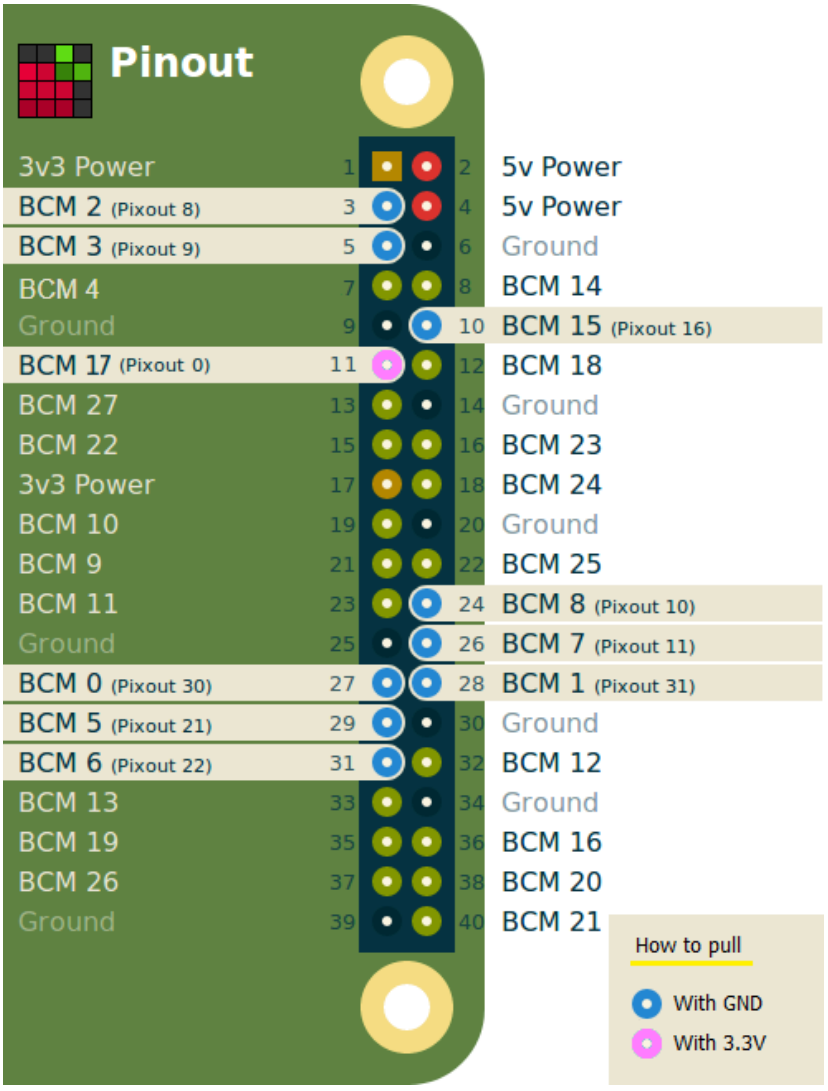
> For example for Key channel 1, Value channel:2 and Step: 1
>
> You need to send following DMX data to start playing (**1**) cuelist **10**:
> 0x01, **0x0A**

The Recorder is configured to perform playback actions using ArtNet DMX trigger, when corresponding sections show ON icon. Recording should not be in progress, if you want the Recorder to listen to the trigger.

GPIO trigger

Use GPIO pinout to trigger DMX action. It will allow to toggle specified cuelist using GPIO pull-up button on a PIN. If you click the button once – toggle will be ON and cuelist will start playing, and if you click button for the second time – toggle will go OFF and cuelist will be stopped.

Please find GPIO PIN numbers at the bottom of this page. To configure GPIO triggering, please go to the section *Triggering -> GPIO* and choose cuelist that should be associated with The Recorder's PIN.



Triggering policy:

1. The "Press-Release" policy. The action is triggered upon pressing and then releasing the button, with the release occurring no sooner than 10ms after the press. To trigger the cuelist play, press the button and release it after at least 10ms.
   For a second Press/Release on the same cuelist ID, the cuelist will stop, and a different cuelist ID will start playing. **This is the default policy.**
2. The "Press-Trigger-Release-Trigger" policy sends two triggers: one on Press and one on Release. The Release must occur no sooner than 10ms after the Press. When the button is pressed, the cuelist will play, and when released, the cuelist will stop.

If you need to change triggering policy please write to support team.

> ❗ **USEFUL INFORMATION**
>
> Blue pins pulled with GND but pink with 3.3V to get it triggered

> ❗ **USEFUL INFORMATION**
>
> It would be beneficial, if you use Pixout PIN numbering. We have our own numeration system, so don't get scared. It is very easy to figure out how it works altogether with "classic" numeration. By pressing on the next GPIO, which is linked to corresponding cuelist, the previous one will be stopped automatically.

MIDI

Use triggering from external devices such as MIDI or Lighting desk or other to manage cue. Using MIDI commands you can select cuelist, change speed or brightness. Every time the button is clicked, it would trigger or stop the cuelist. The Recorder can also output control change values from 0 to 100 controlled by faders. Two of these channels are assigned to brightness and speed.

On note, CID=0x09, Pitch = (cuelist number) – Toggle cuelist playing/stopping

On control change, CID=0x0B, Channel0, Instrument number = (0-100) – Brightness

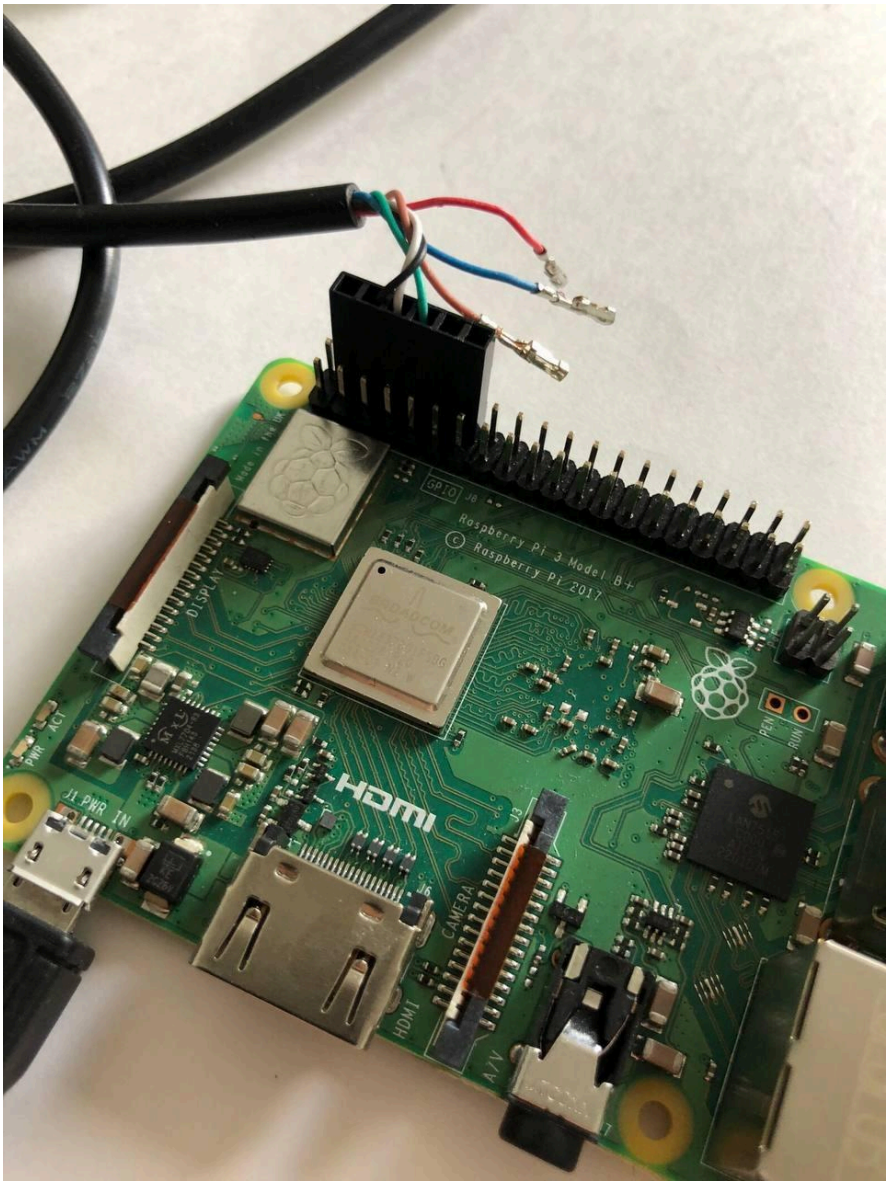
On control change, CID=0x0B, Channel1, Instrument number = (0-100) – Speed

Any external device can be connected with a USB port, so that's why this type of triggering is available only for **unboxed** versions.

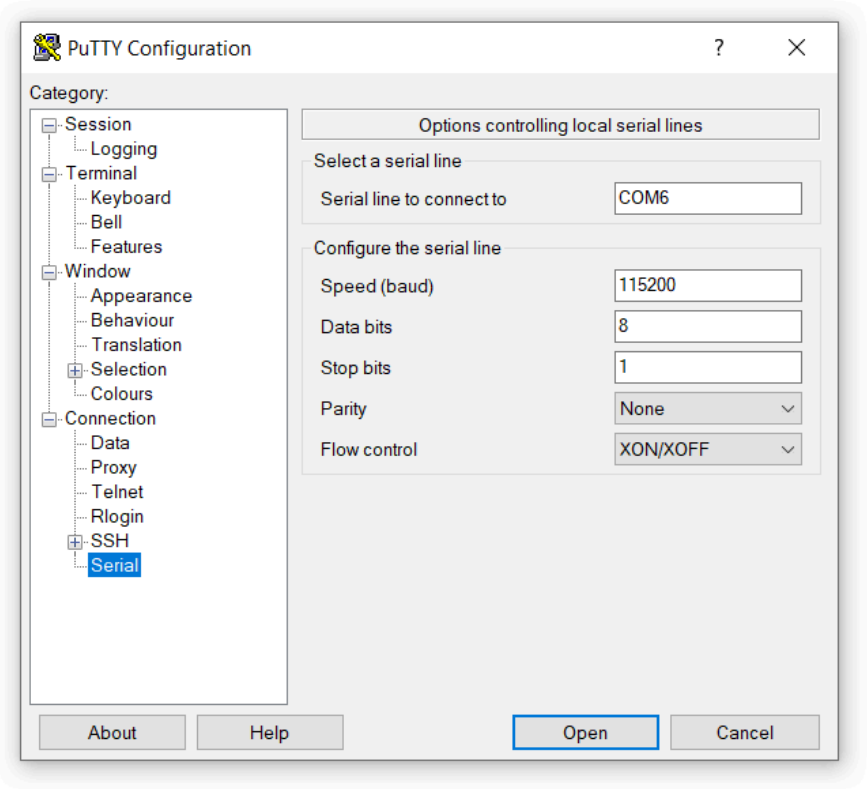
SERIAL (UART)

Connect RX, TX between your system and Raspberry PI where

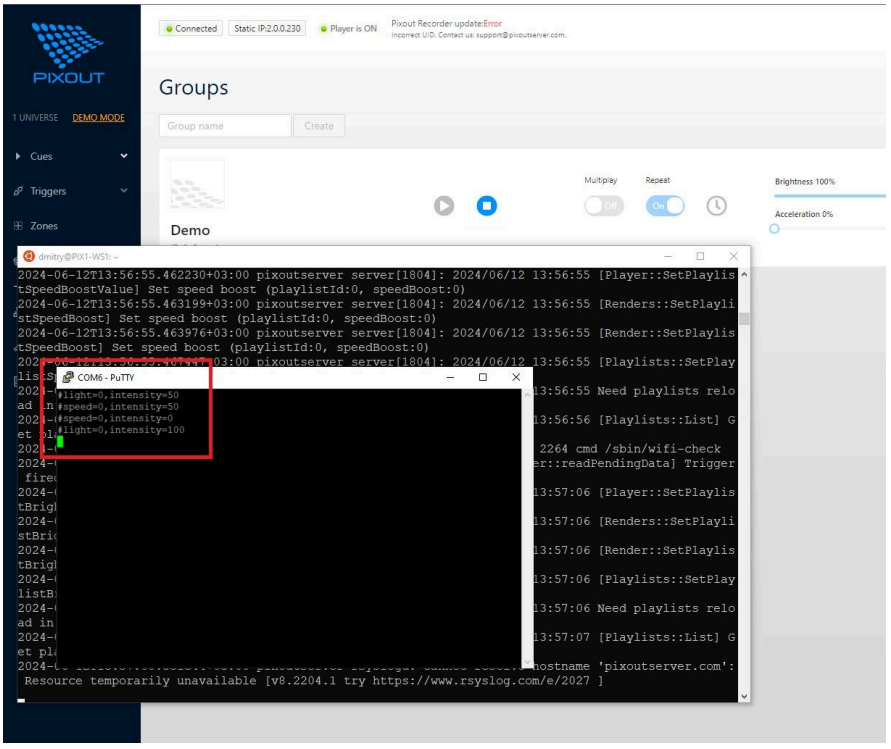
- Black - GND
- White - TX
- GREEN - RX



Start Putty software, connect to the serial port with the specified parameters:



And send data with a \n newline ending.



Data Format

- #play=cue-id
- #stop=cue-id
- #light=cue-id,intensity=100
- #speed=cue-id,intensity=100

Where:

- ‘cue-id’ is integer unique cue ID from cue list
- 100 is integer value from 0 till 100

> ❗ **Example fur cue with ID 0**
>
> **#play=0**
>
> **#stop=0**
>
> **#light=0,intensity=50**
>
> **#speed=0,intensity=50**
>
> **#speed=0,intensity=0**
>
> **#light=0,intensity=100**
>
> **#light=0,intensity=50**
>
> **#speed=0,intensity=50**
>
> **#speed=0,intensity=0**
>
> **#light=0,intensity=100**

> ❗ **NOTE**
>
> (Pixout 16) GPIO pin will be busy for serial and can’t be used

6.2.8 ZONES

Zone functionality allows to mix DMX channels from two different cuelist at once. Just imagine that it works in layer style. For example, cuelist is a layer with DMX channels and you can combine different layer one on top of another or both together with certain rules per DMX channel.

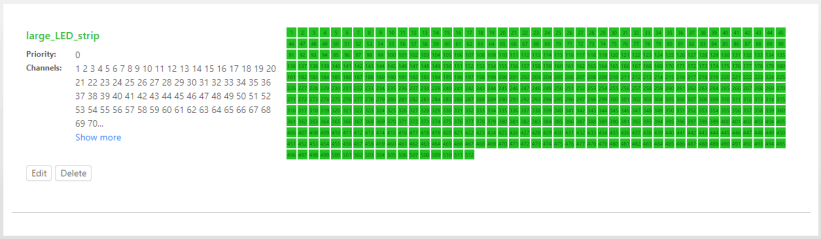
Zone can be assigned to any universe in different cuelists. Cuelist could play simultaneously in Multi mode.

Many benefits could be achieved with zones, you can record PAR and Moving Heads light in independent cuelist and then play them together or inject one cuelist on top of another.

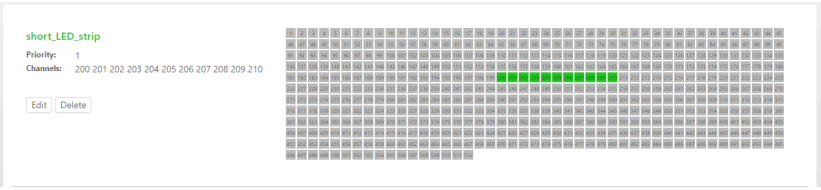
Overlap strategy

For example, if you have a room with one large LED strip (512 DMX channels) and you want to control the whole LED strip at once by cuelist1, but for some reason you need to inject another - cuelist2 - inside 10 channels of the same LED strip.

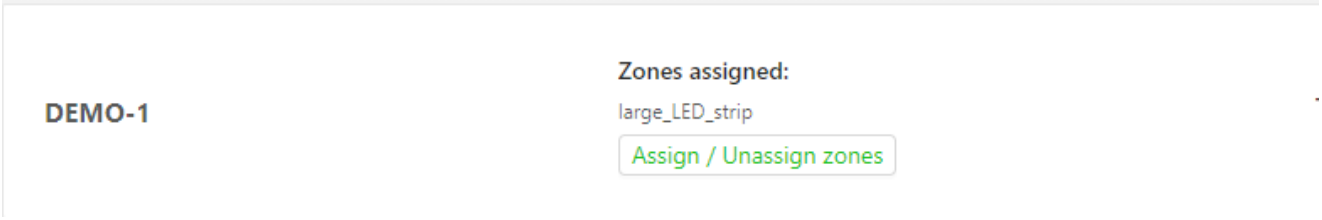
Create zone 1 with **priority:0** and set channel range from 1 to 512 to use all channels for this zone.

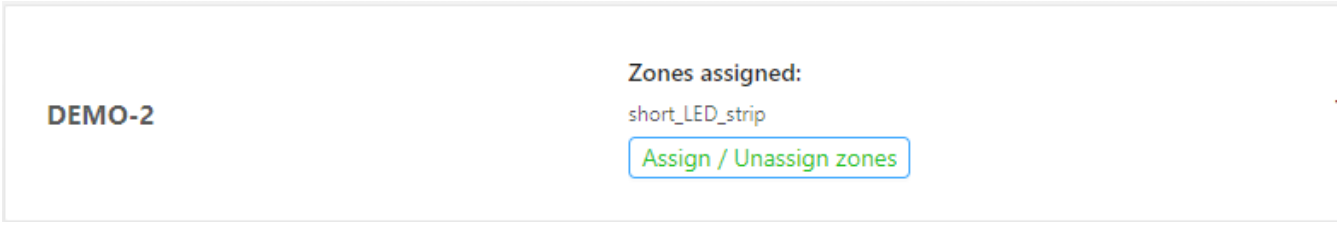


Next, create zone 2 with **priority:1** and set channel range from 200-210 to use only some channels.



Create two cuelists - DEMO_1 and DEMO_2 - with solid white and black RGB data inside

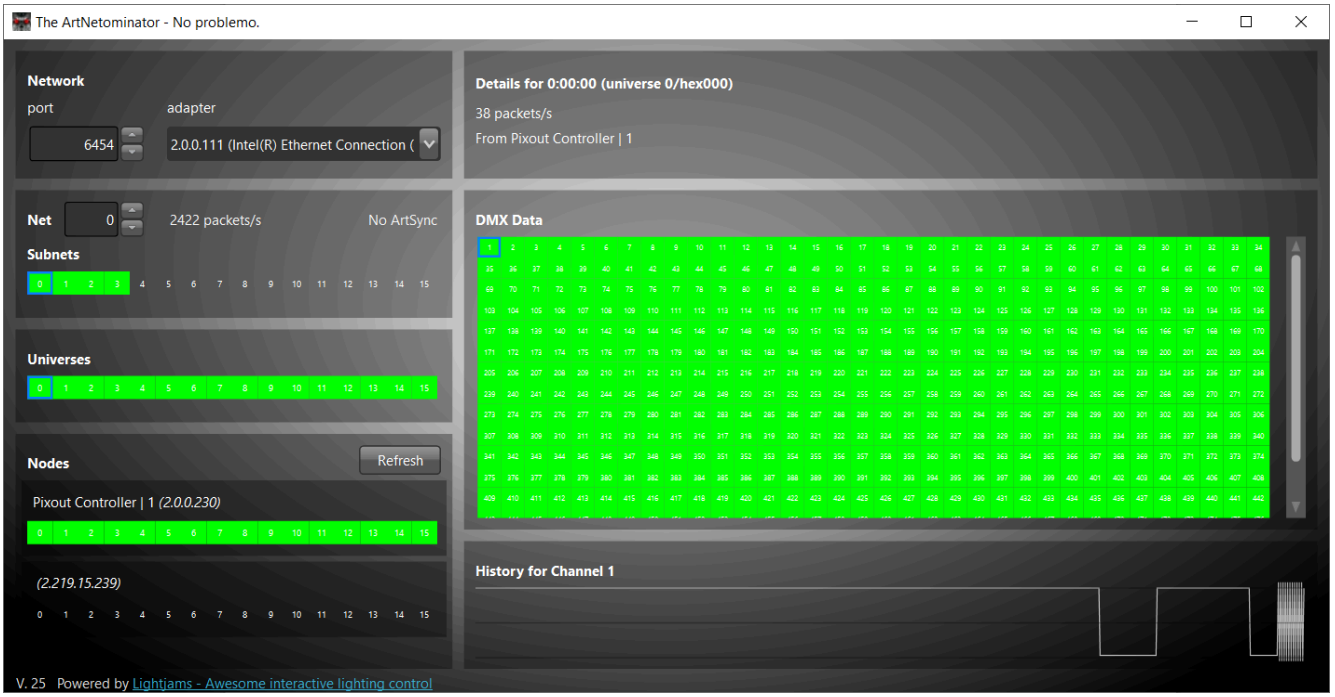




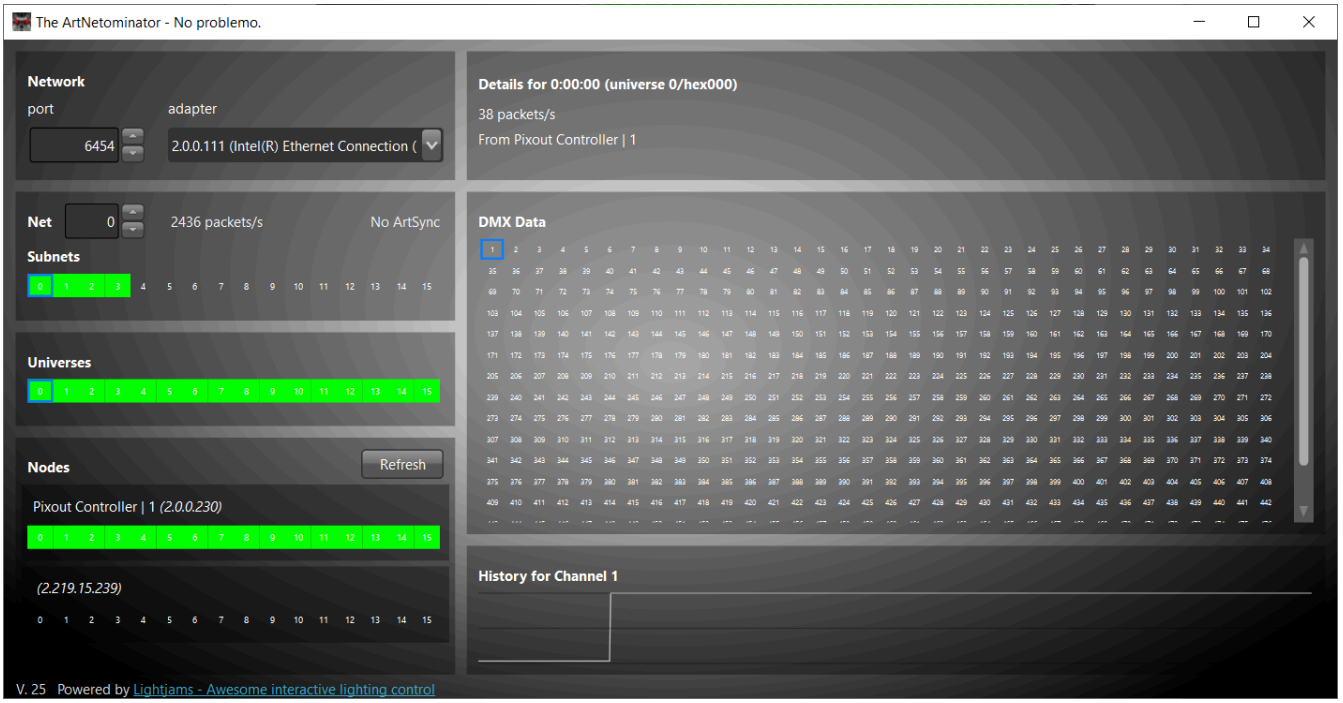
Assign zone to universe1 in two different cuelists different zones large_LED_strip and short_LED_strip accordingly.

Now we need either of those cuelists or both of them simultaneously.

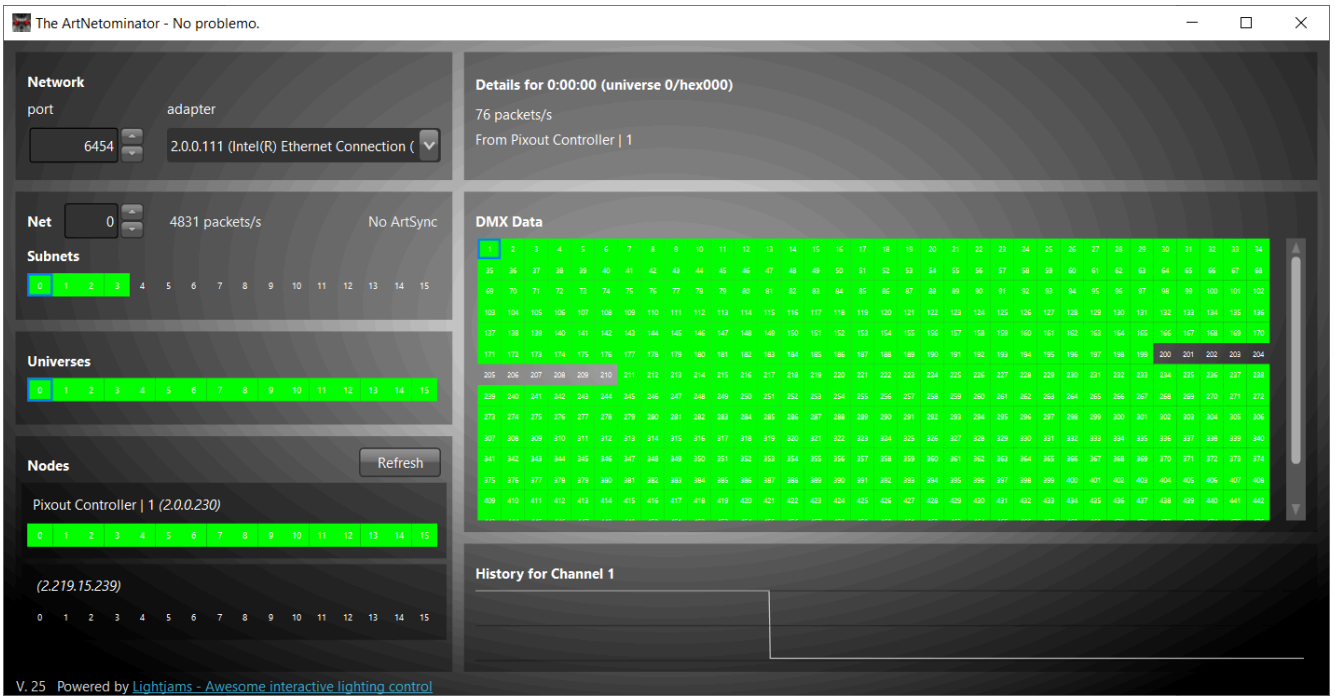
When DEMO-1 plays standalone



When DEMO-2 plays standalone



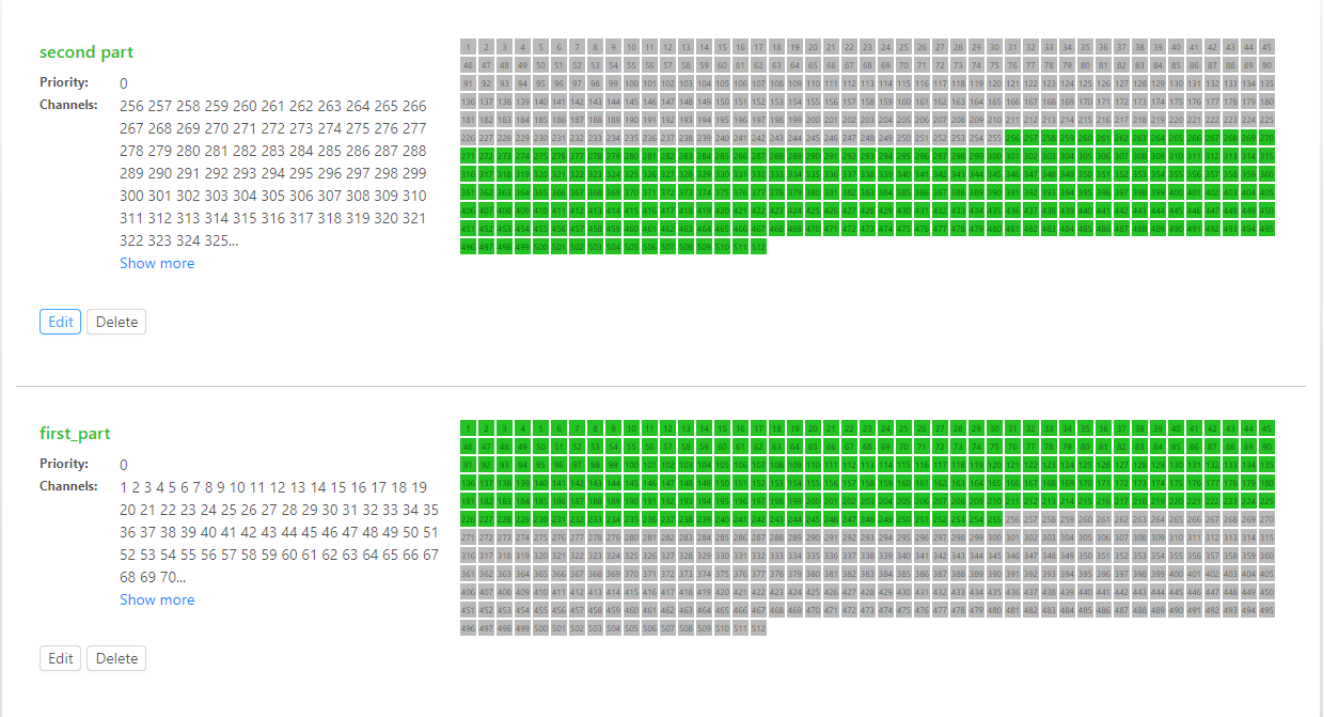
Now Starting both cuelists simultaneously



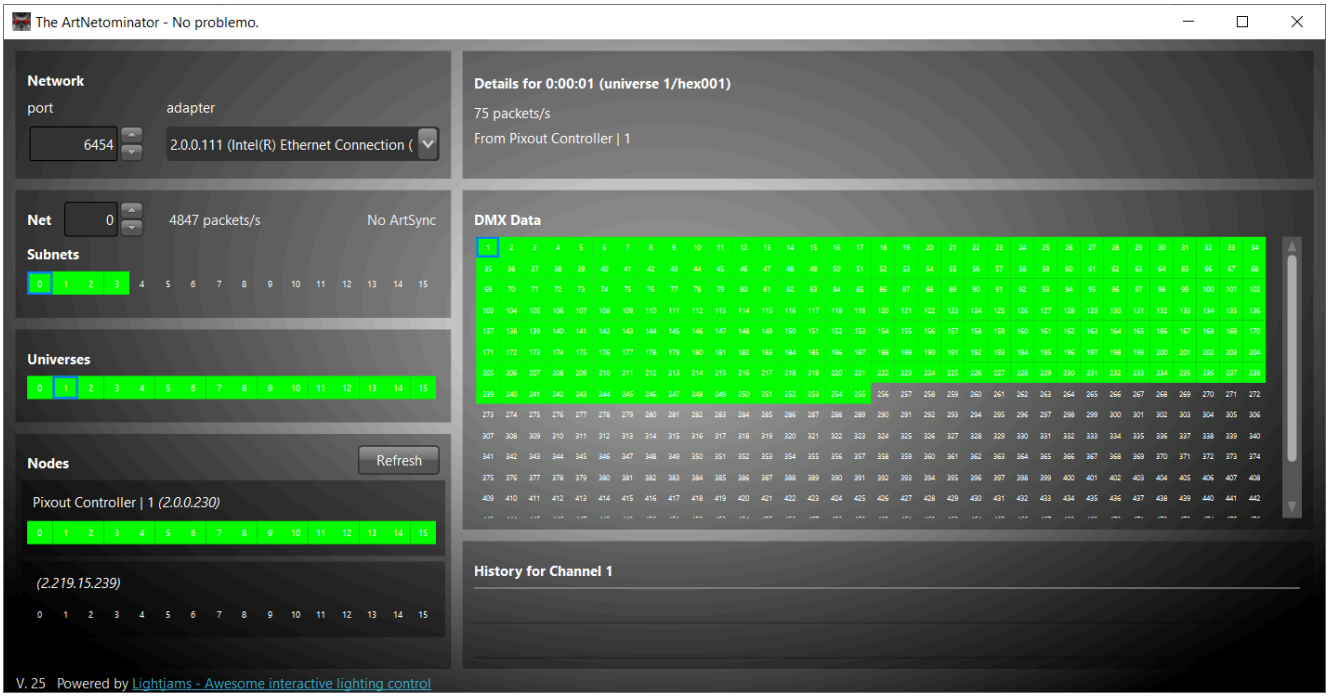
Split strategy

For example, you have a room with one single 512 DMX LED strip and want to share it between two different cuelists.

Create 2 zones: first_part, priority: 0, channels: 1-255 and second_part, priority: 0, channels: 256-512. We have the same priority because zones don't overlap.



Assign to DEMO-1 and DEMO-2 zones in universe2 and start both cuelist. We'll can get following:



niverse to Zones assigning

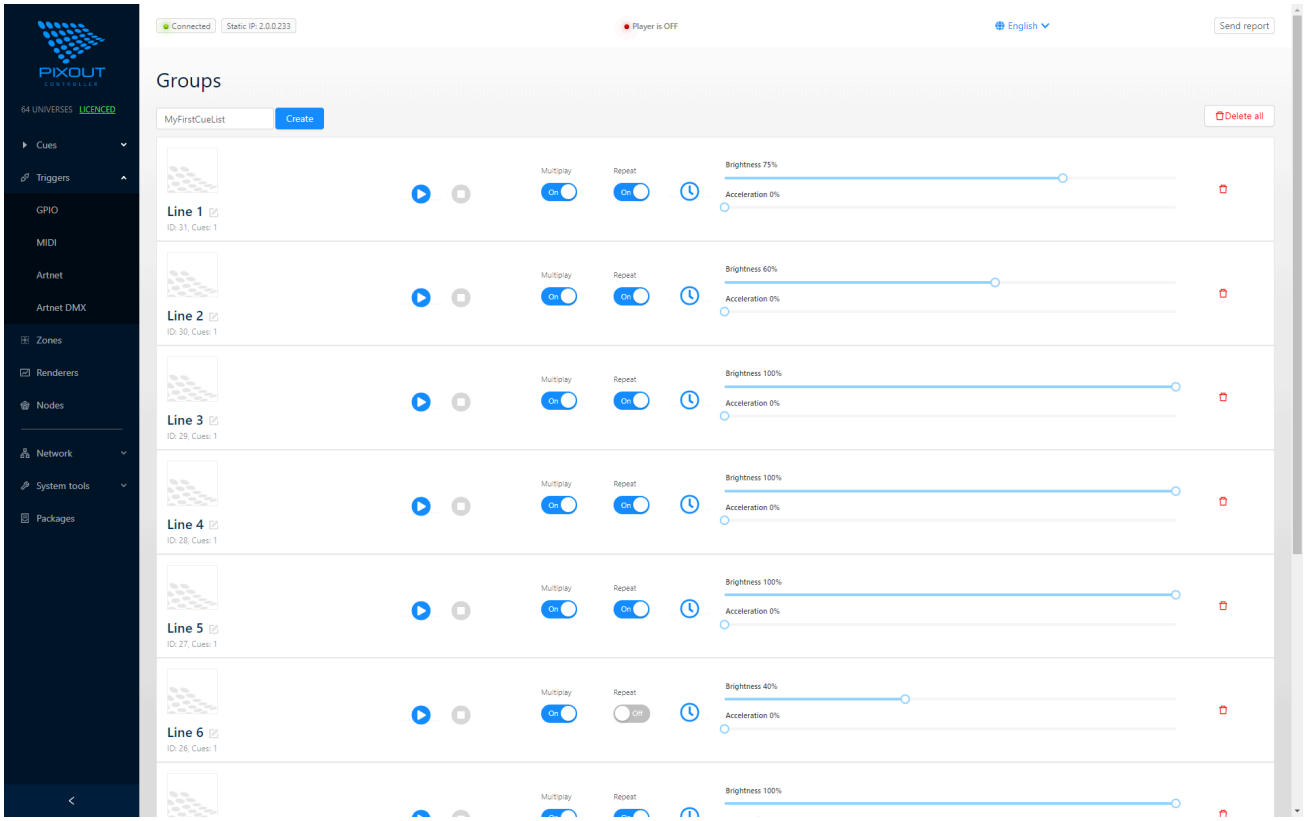
While zone assigning you can ‘Skip’ any universe if you don’t need it or mark to ‘None’.

"None" option can be used as a baseline. Its data is written, but any overlapping channels in the simultaneously playing universe will be overridden, no matter what priority the other cuelist is using.

7. STEP BY STEP EXAMPLE: HOW TO RECORD A NEW CUE FROM MADRIX

1. You need to connect the Recorder and PC to Internet switch, initially Madrix should not be started;
2. PC should be set up to 2.0.0.99 static IP;
3. Type 2.0.0.230/px-admin address in your Internet browser;
4. Find the Cues -> Groups page

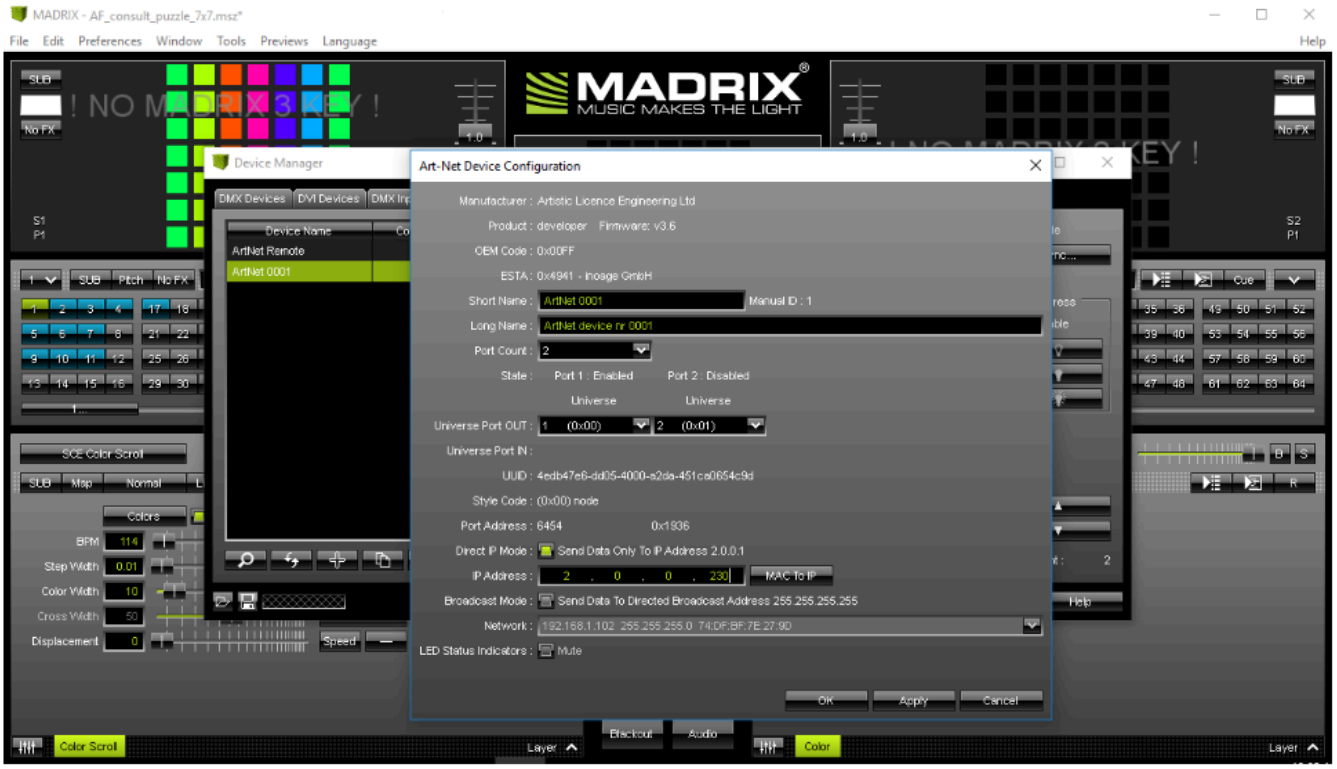
If done correctly, you would see the screen as below:



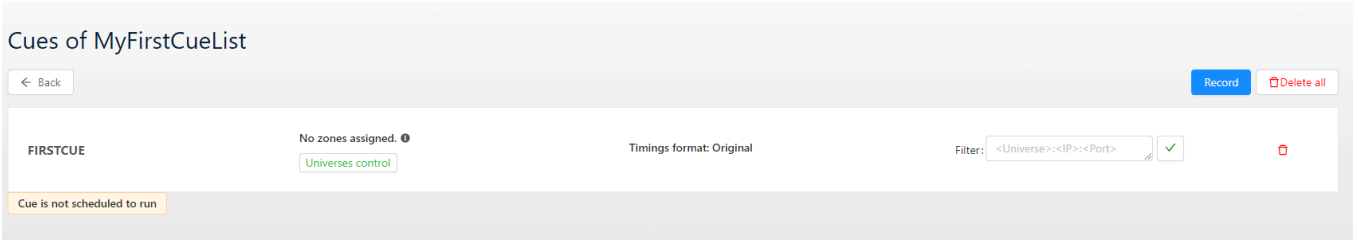
1. Specify a cue list name and click the “Create” button. You successfully created empty cue list, it’s time to populate it;
2. Click the on cuelist name. New dialogue should pop up, where you can record ArtNet sequences by clicking the “Grab” button. You need to specify cue name and press “Grab” and “Stop” buttons accordingly;
3. Start the Madrix and select latest project file;
4. Go to Preferences Device Manager ArtNet and double click on ArtNet device, now you are in ArtNet device configuration;

5. Tick on “Sdirect IP mode” and set 2.0.0.230 address or use “Search” button to retrieve Pixout IP automatically.

1. Click “Apply” button and go back to the Madrix home screen;



2. Now you are ready to record! Please keep in mind that without the dongle Madrix is working for around 40 sec and goes blackout for around 20 sec. You need to be ready with recording during 40 sec. You can save the project under different names (for example: setup_for_recording);
3. If ArtNet sequences reach the Recorder, you will see message "Recording in progress", otherwise you will see "Waiting" message;
4. Click the “Stop” button to stop ArtNet sequences recording. New recorded cue by will be approved automatically.



After you are done with recording, stop the Madrix and go back to 2.0.0.230/px-admin in the Internet browser. Now you can select the cue to play.

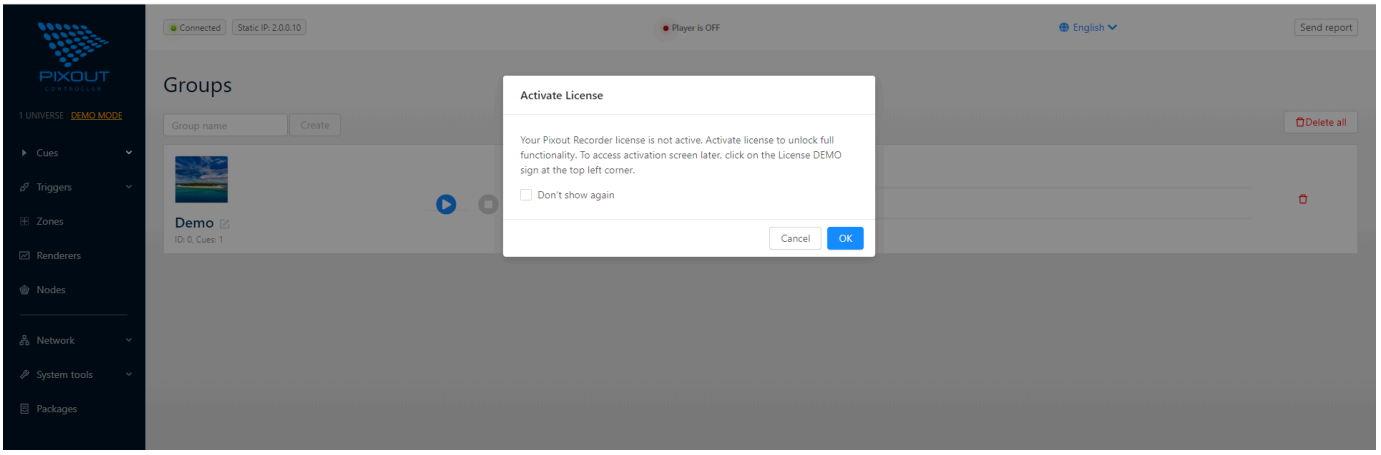
8. LICENSING

You can buy a license for 4/16/32/64 DMX.

Without activating the license, you will have only 1 DMX universe for demo purposes. You should activate the license, after you get it.

There are two ways to activate the license: online and offline. Online activation is possible using wireless Internet connection. In case you don't have an Internet connection, please use the Offline activation option.

When connecting to the Recorder for the first time, you will see the following screen:



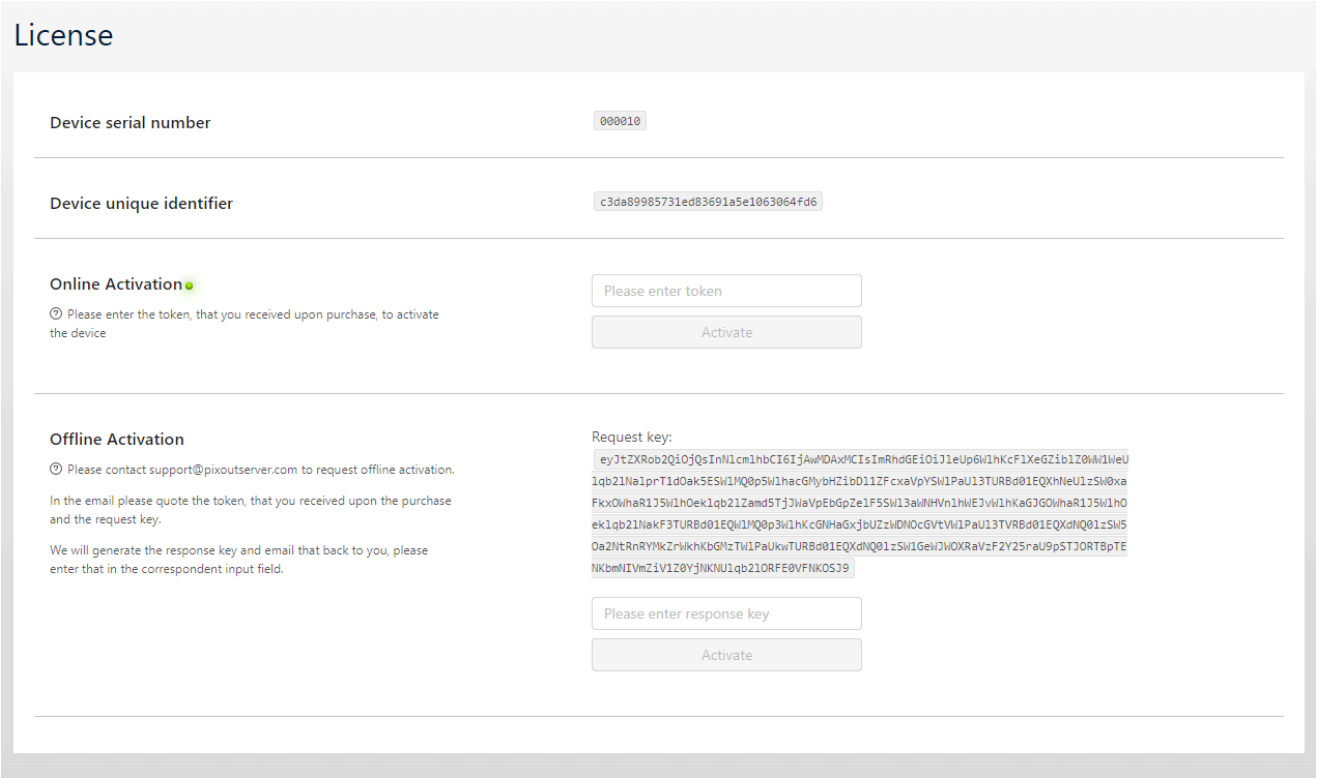
Now it is possible to skip the activation step and continue to work in demo mode with limitation to one universe. Otherwise, please activate the license and get full functionality according to the purchased license.

To activate your license, please click the "OK" button and get to the License section.

If you are connected to the Internet, it is better to activate license online. Just put the token which you received when purchasing your Pixout Recorder and click the "Activate" button.

If you are not connected to the Internet, you can use Offline activation. You should send an activation request to our Support Team via support@pixoutserver.com with copied "Request Key". Then put a provided token to "Response Key" field and click the "Activate" button.

See the image below.



REACTIVATION

If your SD card is corrupted, you should flash a new SD card on the same Recorder where it was activated for the first time, as described in section “6. UNBOXED VERSION” and reactivate your license with the same activation key.

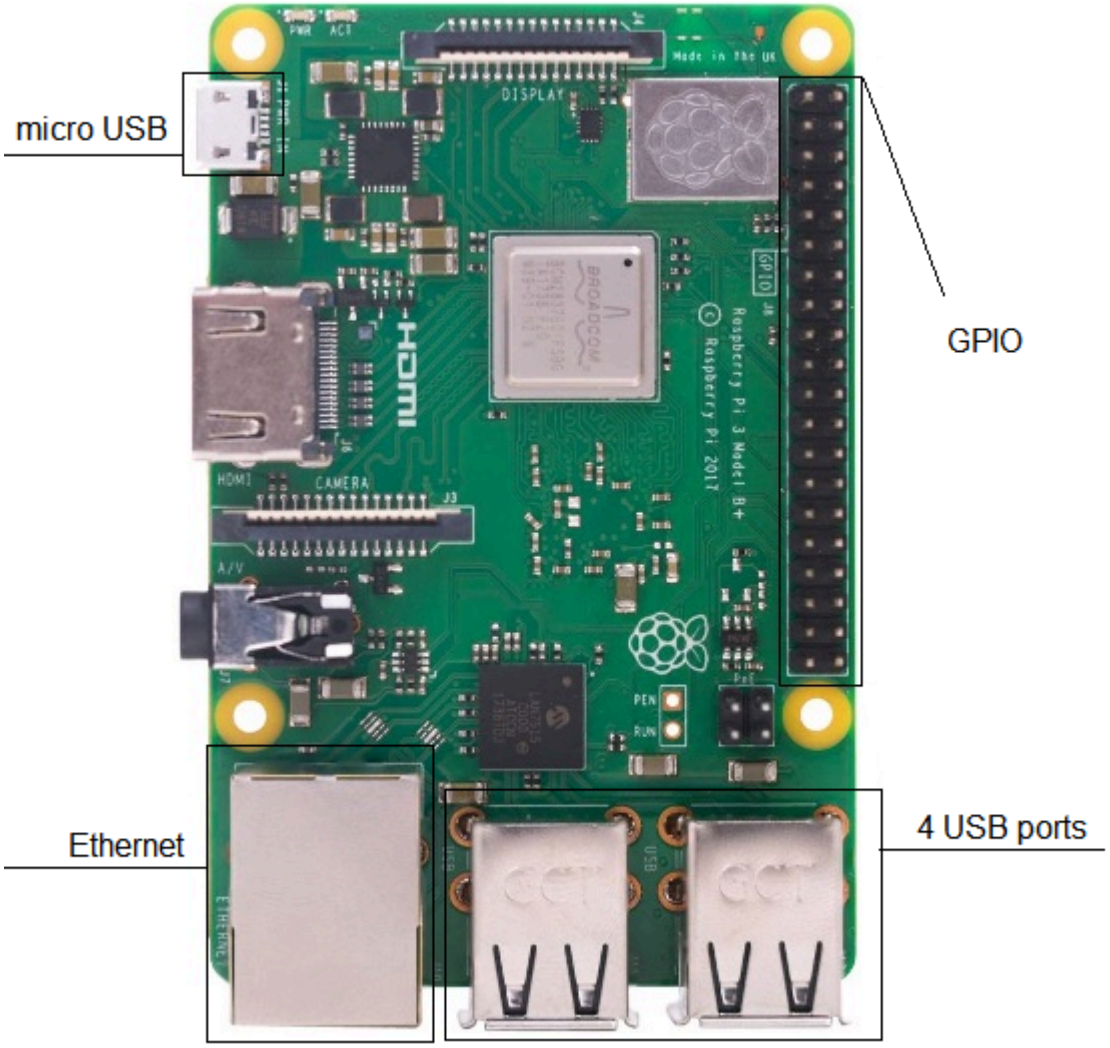
RENEW THE LICENSE

If your Raspberry Pi has stopped working and you can't access it, you should use a new device and renew your license for it. If this is the case, please contact our Support Team via support@pixoutserver.com

UPGRADE THE LICENSE

If you need more DMX universes than you have, you don't need to buy a new Recorder with a new license. Please buy only one new license and use it with your current device. Activate your new license the same way as for the first time.

9. FOR UNBOXED VERSION



SPECIFICATION

Hardware: Raspberry Pi

- RPI 1B+ – with Edimax EW-7811Un Wi-Fi dongle
- RPI 2B v1.1 – with Edimax EW-7811Un Wi-Fi dongle
- RPI 2B v1.2 – no Wi-Fi supported
- RPI 3B – fully supported
- RPI 3B+ / CM3 – fully supported
- RPI 4/CM4 -– fully supported

Protocol: ArtNet DMX

Internal storage: micro SD card

Dimensions: L/W/H, 85.6x53.98x17 mm

Connection:

- RJ45 socket for 10/100Base-TX
- Wireless network 150Mbps

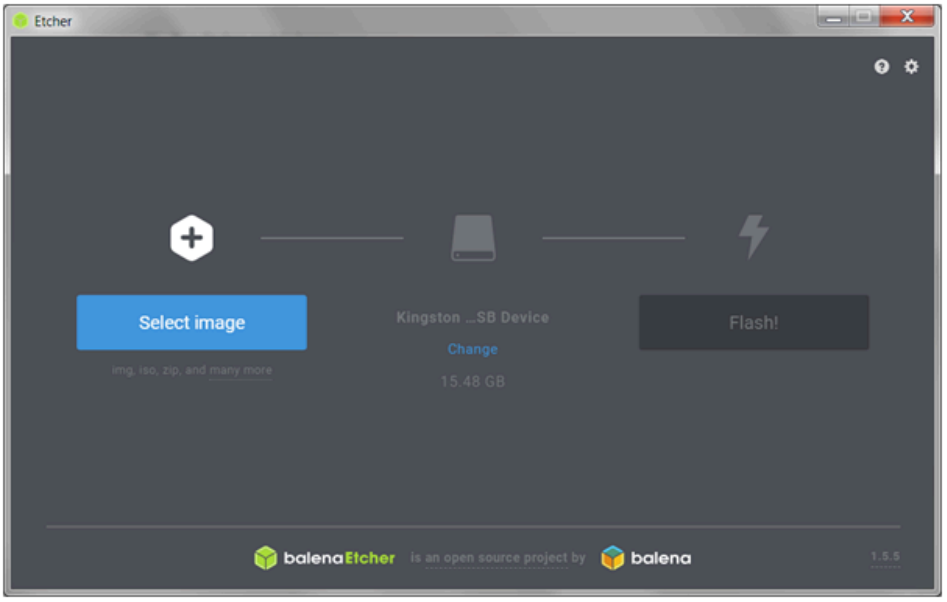
Power:

- DC power 5V micro USB

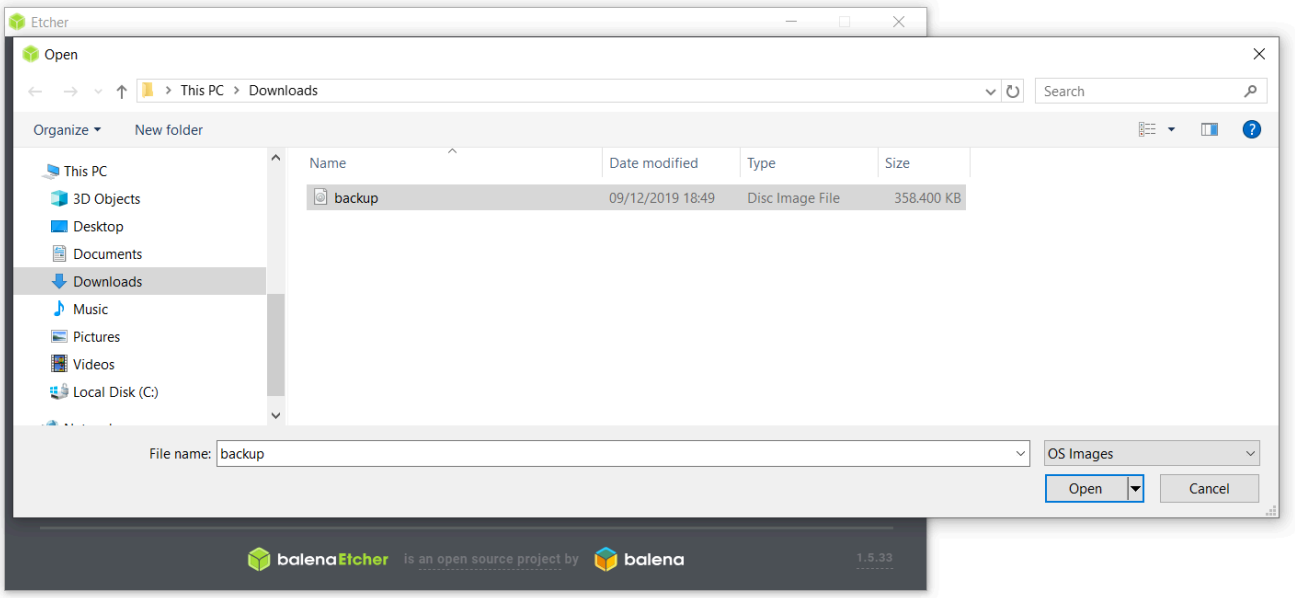
GETTING READY TO USE

After purchasing the Unboxed version (PIXOUT SOFTWARE ONLY), please install firmware on SD card for using with your Raspberry Pi. To flash your Raspberry Pi with Pixout Software, please follow the next steps:

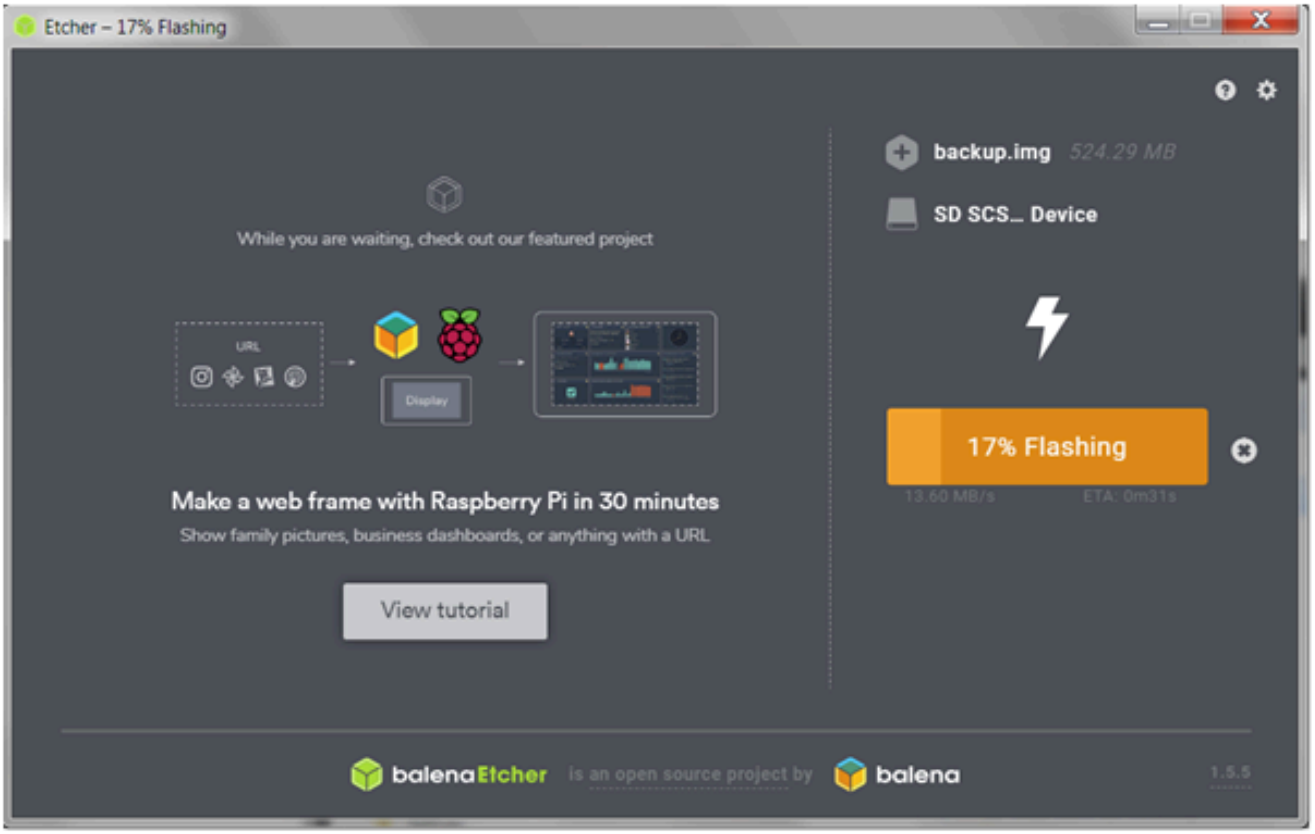
1. Download and Extract Pixout Software image for
   Raspberry PI 3B/3B+/CM3:
   http://pixout.lighting/downloads/images/pixout-rpi3bp-ver2.zip
   Raspberry PI 4/CM4:
   https://pixout.lighting/downloads/images/pixout-rpi4-ver2.zip
2. Download and Run Etcher tool: https://www.balena.io/etcher/



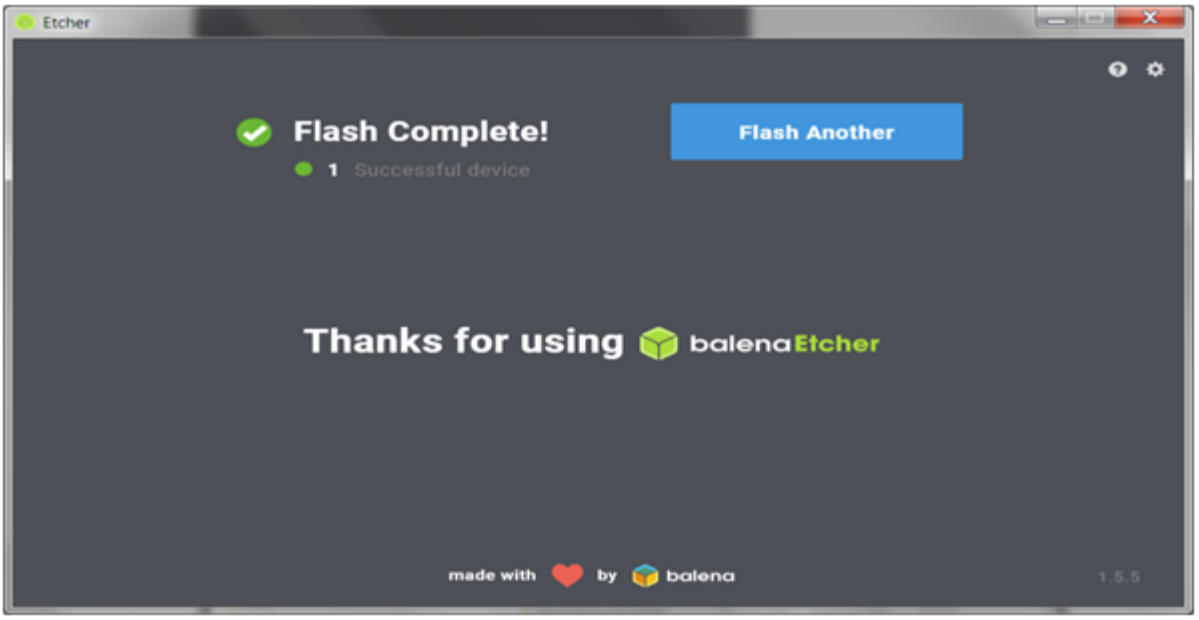
3. Select extracted Image “backup.img”



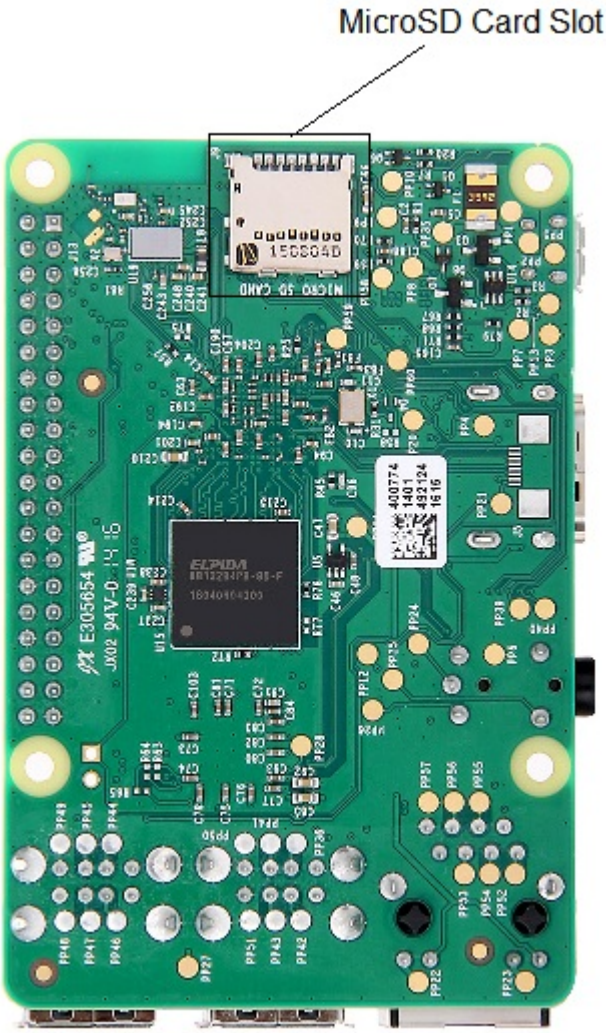
4. Select “Drive” where installed SD card and click “Flash” button



5. After Flash is completed, you are ready to use Pixout software.



6. Insert SD card into appropriated slot



Your device is ready to use!

Last thing is to connect to your device as described in section HOW TO START and activate your license as described in the section LICENSING.

10. CONCLUSION

We are happy that you've chosen Pixout ArtNet Recorder to manage your lightning!

This user guide describes basic operations with the Recorder. Our team is working hard on developing new features and constantly seeks to expand the Recorder's functionality. Check our web site https://pixout.lighting for all the updates and full information.

You will find documentation and download software on our website. Please check FAQ for customization and integration availability.

If you still have any technical questions about our product, please don't hesitate to contact our Support Team via support@pixoutserver.com.

If any financial queries, feel free to contact our Sales Team via sales@pixoutserver.com

ENJOY YOUR PIXOUT CONTROLLER!

Delightfully yours,

Pixout