Light Stream
Player

# User manual


Version 0.14.5

# Content.

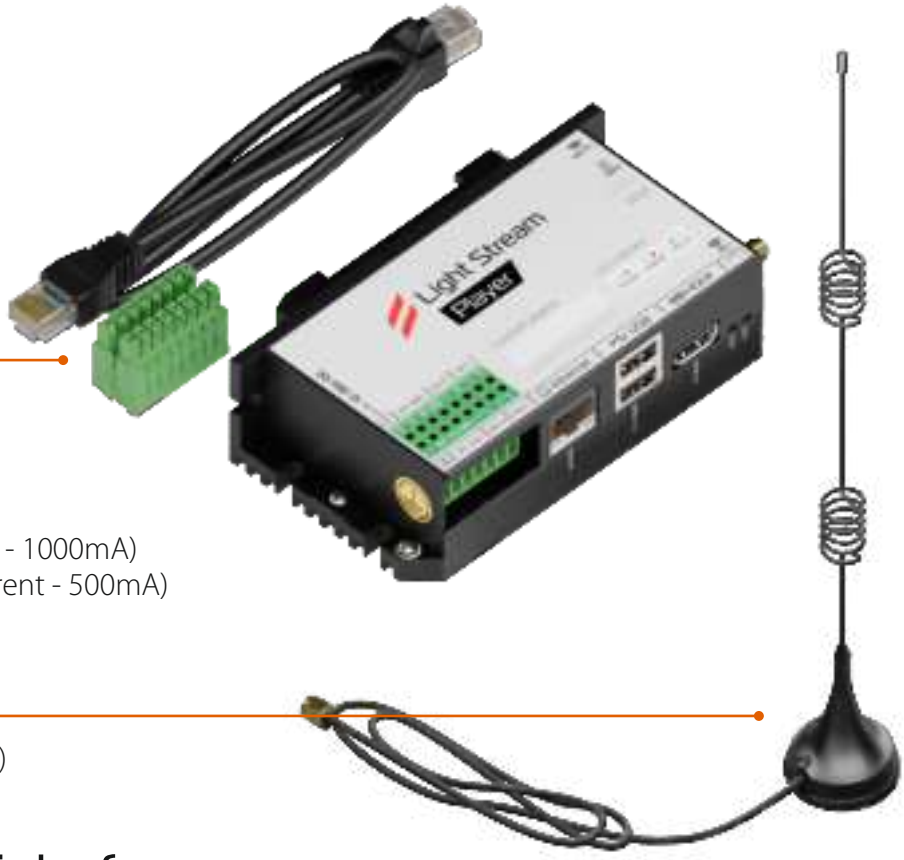
# 1) First connection.

## 1.1) Supply and completion.

**Light Stream Player** comes in a special box for the safety of the device during transport.

**Included in the package are:**

- Patch cord cable.
- Multicoupler with spring contacts.
- Optional: external antenna for 4G LTE signal reception (LTI).




**Patch cord**

RJ-45 plug

**Multicoupler**

1 x RJ45 port support 10/100M/1000M ethernet
2 x USB 2.0 Port
1 x HDMI 2.0
2 x DI isolated (DC input - 24V, current - 1000mA)
2 x DO isolated (Output - sub 30V, current - 500mA)
1 x RS-485 isolated
1 x RS-232

**4G LTE**

4G LTE module and antenna (optional)

# Location of physical interfaces.

**Multifunctional port**
for 12 to 36 V power connection

**RS-485/DMX** port for connection of lighting devices.

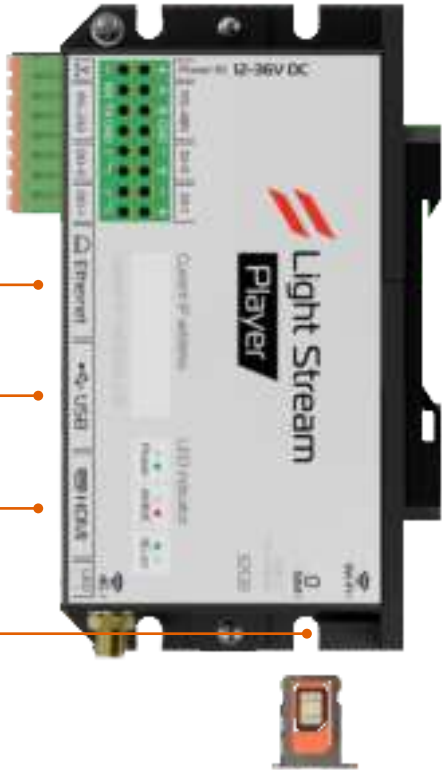
**Ethernet** port for accessing the player's web interface.

Two **USB** ports

**HDMI** port

**SIM card tray**

Micro SIM 15*12*0,76



# 1.2) First connection without internet.

**Alternative setup.**

**1.** Connect the Light Stream Player to a 12-36V power supply unit

**2.** Patch-cord cable, which is included in the kit, connect to the Light Stream Player in the Ethernet socket, and connect the other end of the cable directly into the network card of your personal computer or laptop.


**There are two ways to connect: With and without internet access, directly to a PC.**

Now we will consider the second method, but for full configuration it is recommended to connect to the Internet. to the Internet, which we will demonstrate below.

# 1.3) Configuring the network card.

**What IP should I use?**

**Since Light Stream Player has a default IP address of 192.168.0.205,** to connect to the Player web-interface via this IP address, we need to specify the IP address of your network card in the format 192.168.0., **where the last number is different from 205**, as it is the Player's address and is in the **range from 1 to 255.**

192.168.0.112

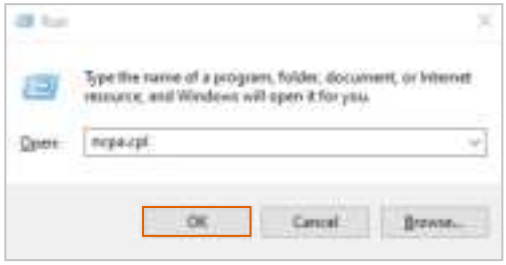
One subnet Devices

**First, let's go into your network card settings.**

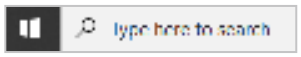
To do this, we need to go to the **«Network Connections»** folder.

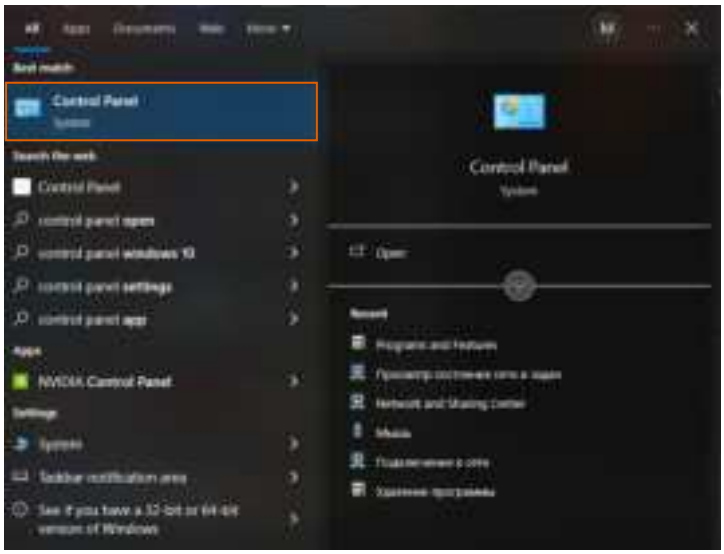
**There are several ways to get to the right folder**

**1.** The fastest way is to press the **«Win+R»** key combination to open the **«Run»** window, in this window we need to write the command **«ncpa.cpl»** and press the **«OK»** button.

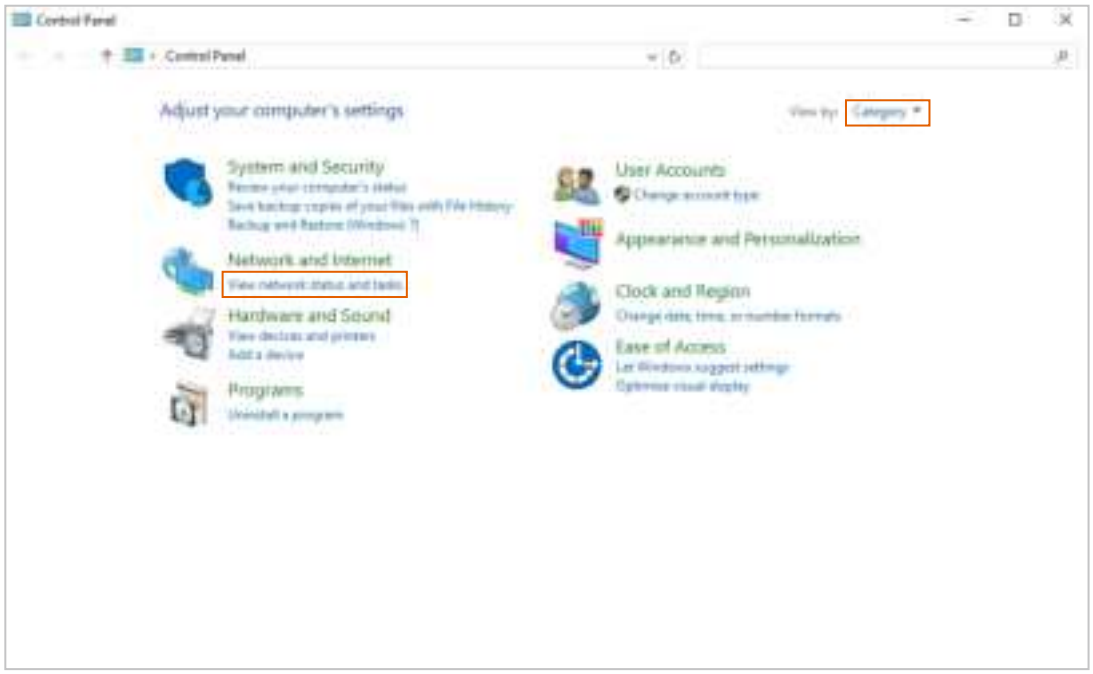



**2.** You can also access the **«Network Connections»** folder through the Control Panel. To find the **«Control Panel»** let's use the **«Search»** in Windows. Press the **«Win»** key once and start typing the query. Type **«Control Panel»** in the search box and click on the **«Control Panel»** icon found.

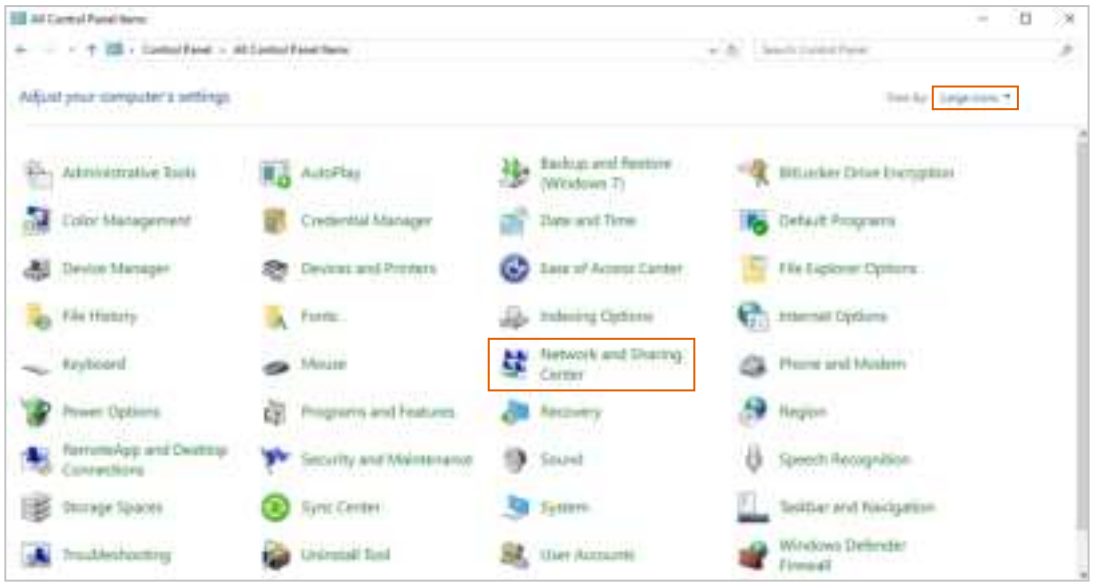


If you have **«Category»** view in the **«Control Panel»** folder that opens, under the category **«Network and Internet»**, click on **«View network status and tasks»**.

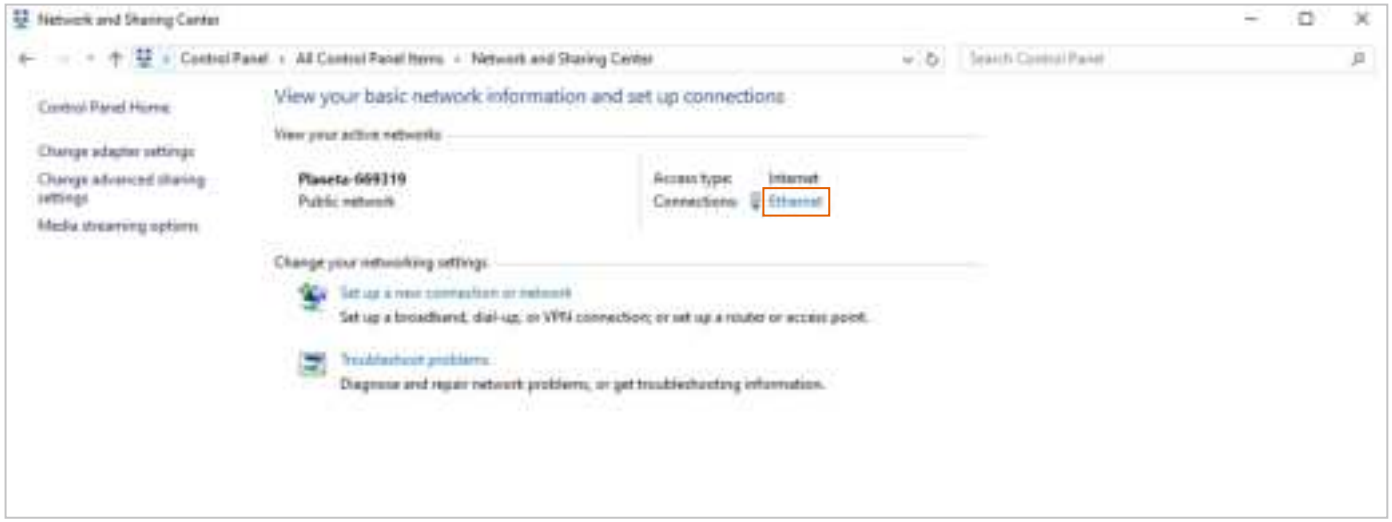



If you have **«Large Icons»** or **«Small Icons»** view mode in **«Control Panel»** then find the **«Network and Sharing Centre»** shortcut and click on it once with the left mouse button. In this section, select the **«Change Adapter Settings»** category on the left and here we are in the **«Network Connections»** folder we need.



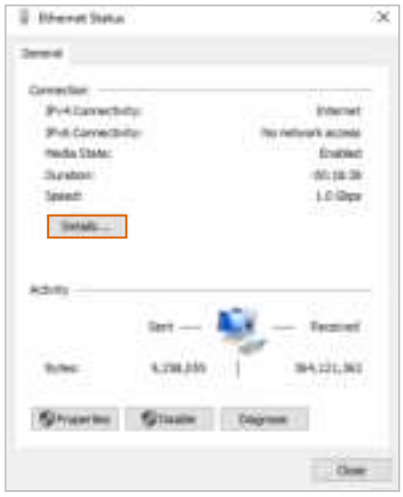
**Save the original settings.**

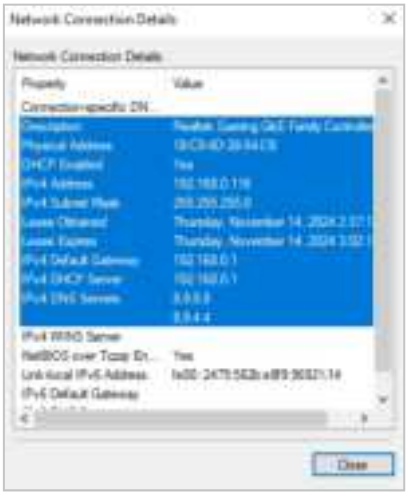
Open your network connection.




Go to the **«Details»** section and overwrite or copy your current network card settings by highlighting everything with the **Shift** key held down and pressing the keyboard shortcut **Ctrl+C**.

Paste them into any text editor and save the file. We will need them in the future to reset the network card settings to your network's original settings.
Close the **«Network Connection Details»** window.



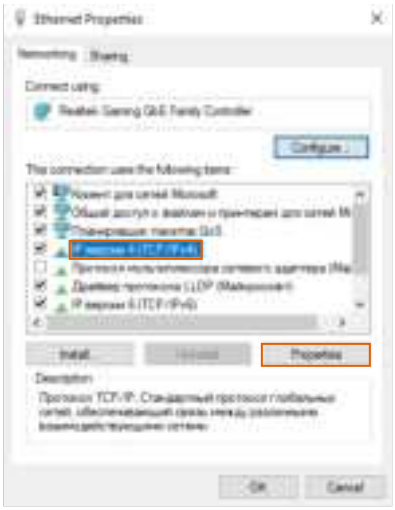



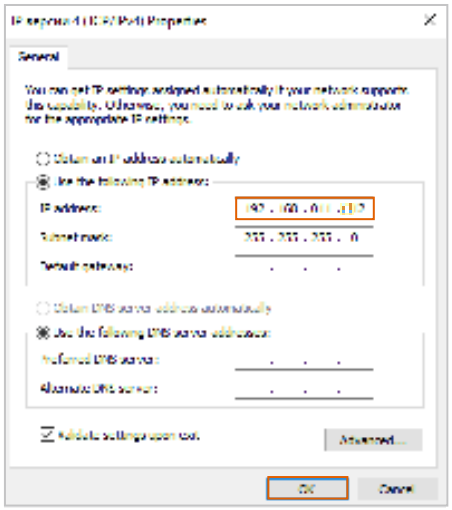

**Configuring the IP address of the network card.**

If you have multiple network cards, you need to find the network connection that is currently used by Light Stream Player. You can reconnect the cable again and see which icon changes.


Cable connected | Cable disconnected | Cable connected

Find **«IP version 4 (TCP/IPv4)»** in the list of components, select this component and click **«Properties»**. Select **«Use the following IP address:»** In the **«IP Address:»** field, enter a new IP, for example **192.168.0.112.**





Click **«OK»**, this completes the IP address setting of the network card.

# 1.4) Access to the web interface.

**Now we go to your web browser.**

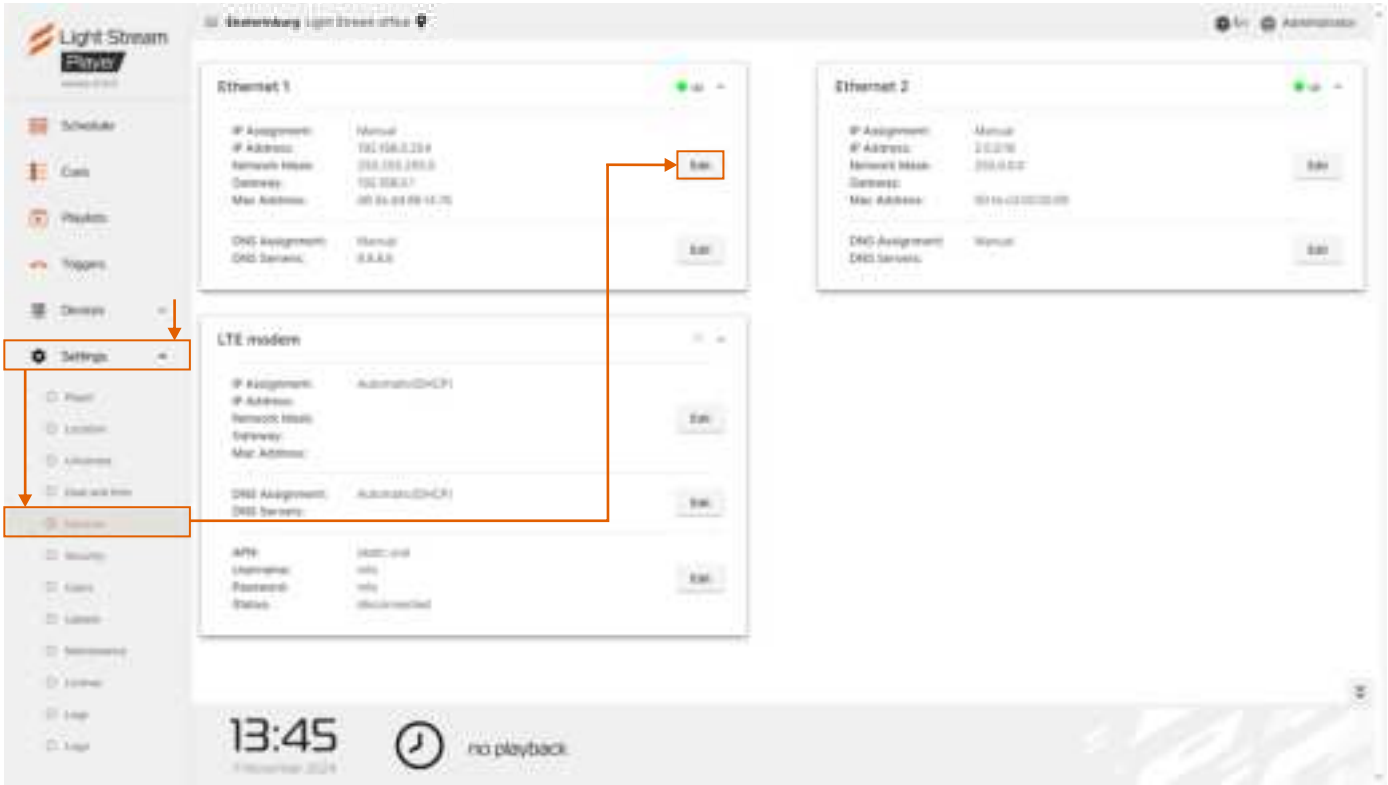
In the address bar of the browser enter the IP address of Light Stream Player **192.168.0.205.** In the opened page of the Player web-interface enter Username and Password, by default **administrator** and **administrator** in English layout and with a small letter.


**You can now change the IP address of LightStream Player to your network address.**

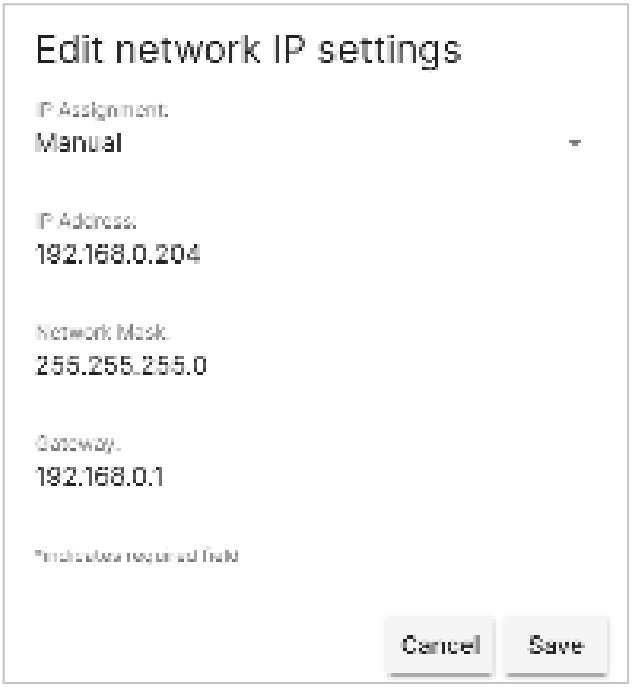
You can set it in **«Manual»** mode or select **«Auto (DHCP)»**.

Let's break down the **«Manual»** setting.

Under **«Settings / Network»,** click Modify next to the Ethernet section and type in IP address of your subnet.

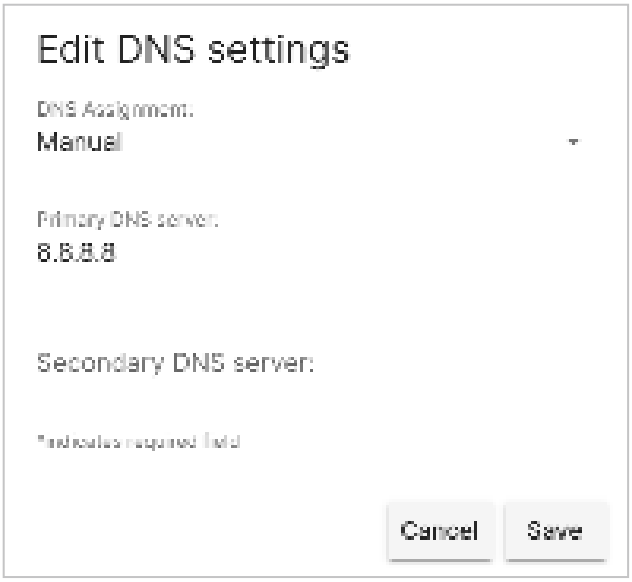


For example, **if your computer was in another subnet and used IP address 192.168.5.14,** then you should change the IP address of LightStream Player to **192.168.5.** and enter the last digit different from the IP addresses of your PC, router and other devices in your subnet. Don't forget to specify the Netmask **255.255.255.255.0** and the Gateway of your subnet, which is the address of your router (you can see it on the saved data we copied in the beginning).




The gateway address is needed to access the internet when we connect LightStream Player to the router.

Next, specify DNS server, you can use public **DNS 8.8.8.8.8**. Click the **Save** button and save the data.

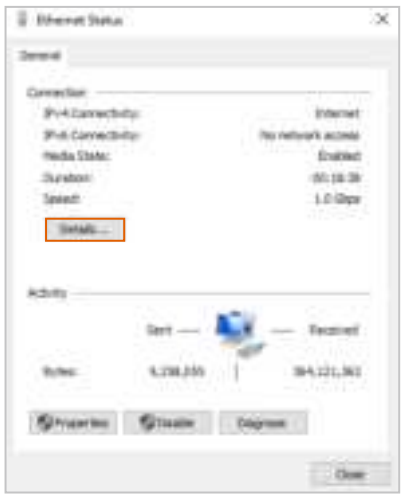


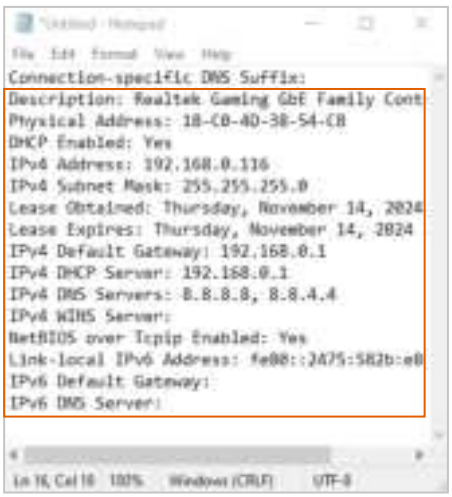
# 1.5) Return your network to its original settings.

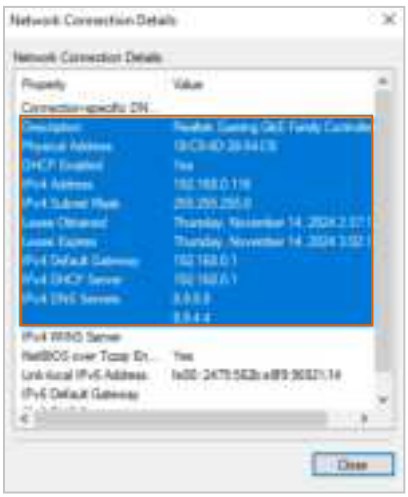
**We have configured LightStream Player to be on the same subnet as your devices.** You can reset your network card settings to the original settings.

We copied them at the very beginning of the setup.

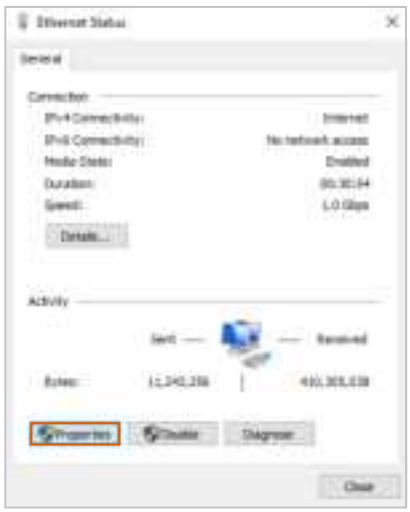
Just go into the **«Network Connection»** folder, open your network card settings and overwrite the values from the saved data of the original setting. You can simply **copy/paste** the fields from a text editor.

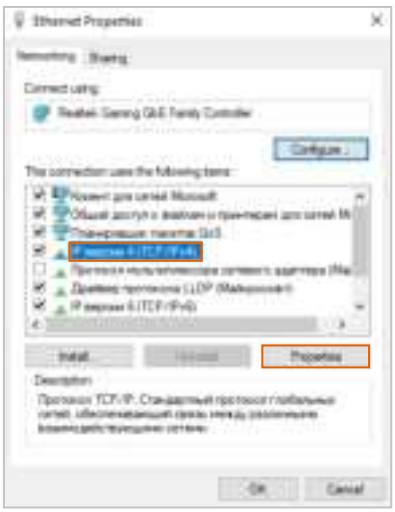


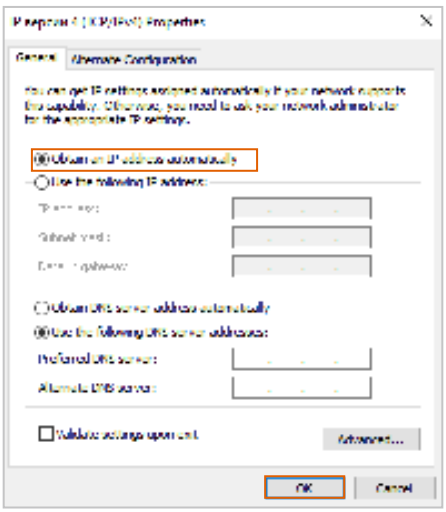


If your network card has been configured to obtain an IP address automatically, select **«Obtain an IP address automatically»** and click **«OK»**.







# 1.6) Completing the setting

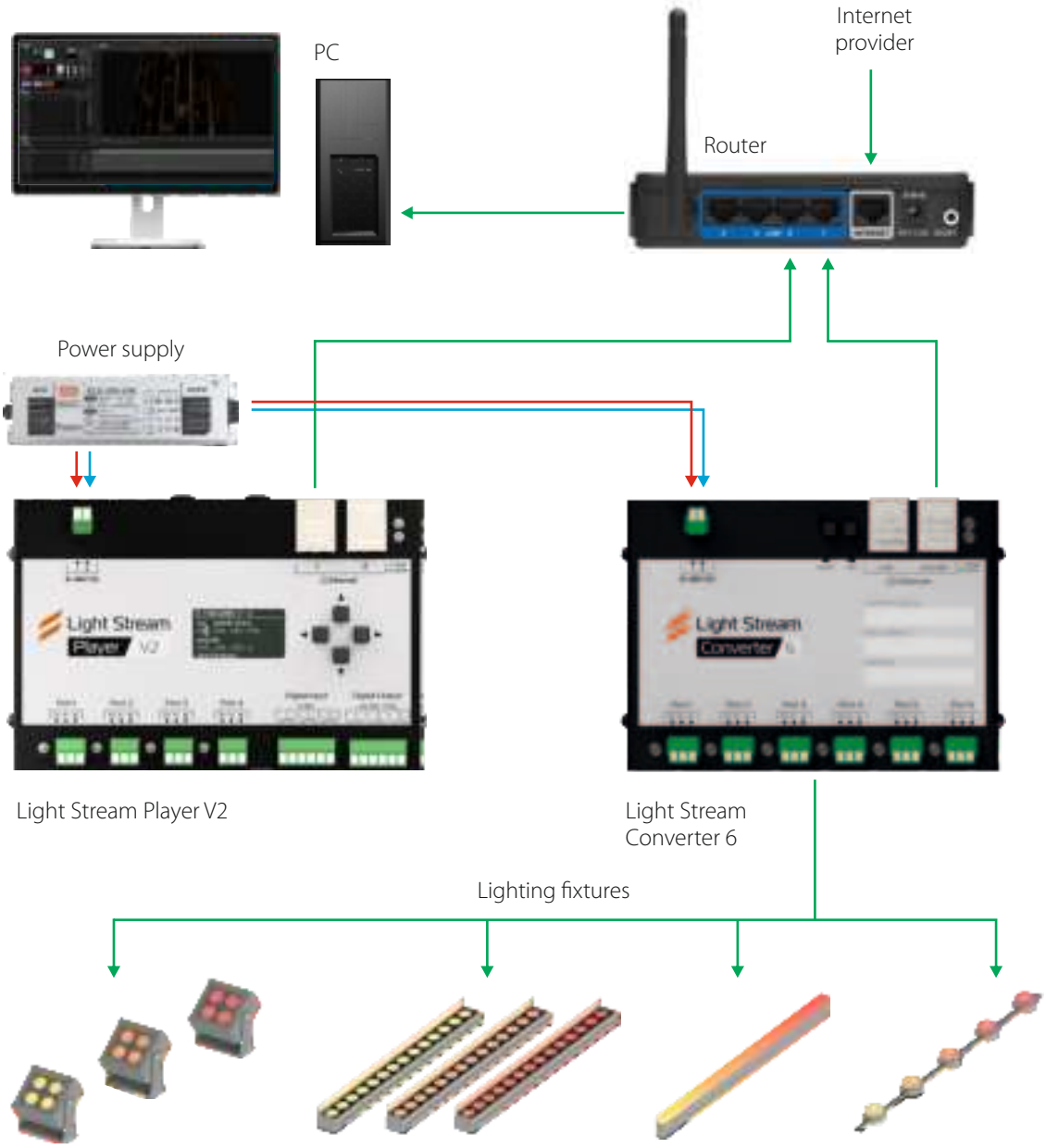
Now, to access the web-interface of your Light Stream Player, you need to enter the IP address that we have entered in its settings.  In this example, it is **192.168.5.21.**

**Let's now connect an internet connection to our chain to fully configure Player and synchronise with World Time.**

To do this, connect Light Stream Player to the router to which your PC is connected to access the Internet, then LightStream Player and your PC will be on the same subnet and will have access to the Internet.

Now you can go to the Light Stream Player web interface to configure it in detail.

**You can also add to this chain Light Stream Converter,**
which is also connected to the router.
To configure the Converter and change its IP address, use the Player's web interface or via the Light Stream programme.



# 2) Web-interface. Authorisation.

Access to Player is carried out using a web-browser at the specified IP address from a stationary computer or phone (tablet, the IP address for access to Player should be specified by the IT service. computer or phone (tablet, the IP address for access to Player should be clarified with the IT service). The Player interface login page is loaded. If it turns out that you have selected any other language, you can click on and change it to English.

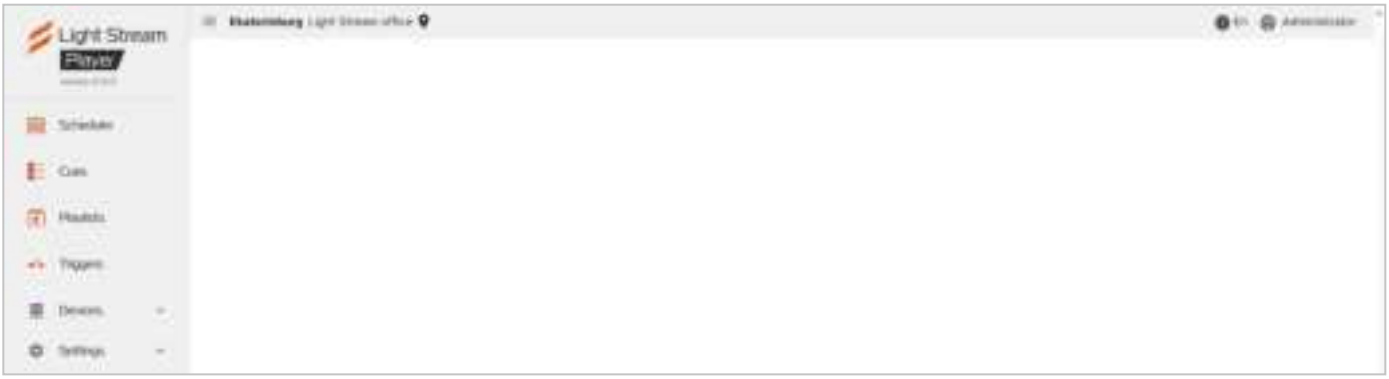

**Access details:**

**IP address:** _____

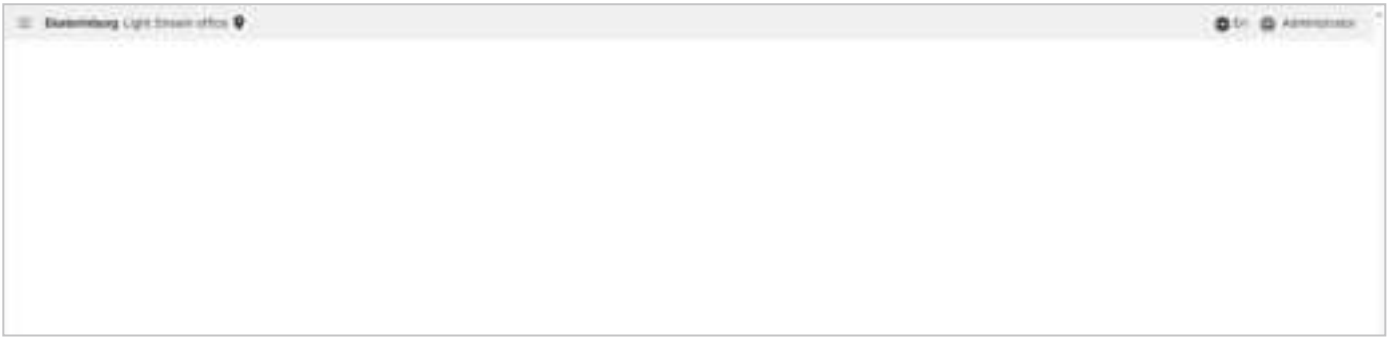
**User name:** administrator (by default)

**Password:** administrator (by default)

Then you get to the interface of Light Stream Player.

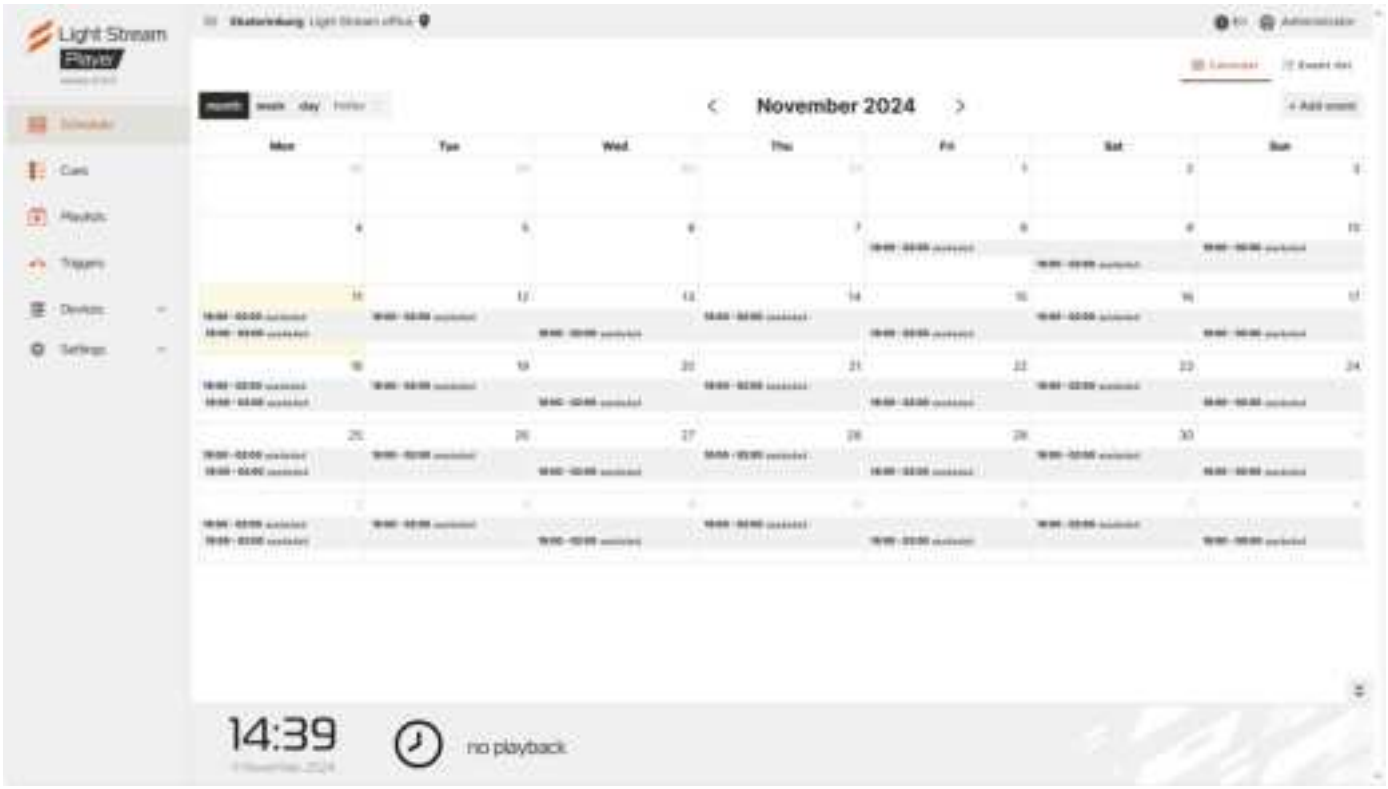



The main menu can be hidden, if desired, by pressing the button .



# 3) «Schedule» tab

**In the window of this tab, you can configure the schedule for launching playlists.**




The list of all events is presented in calendar form by default, as well as there is an opportunity to to view the list of events for a week or a certain day, using buttons month week day to switch between window views.
To switch between months (weeks or days) use buttons ‹ ›.
The button today returns the calendar to the current day.

You can also view the list of events as a sheet by pressing the button Event list .

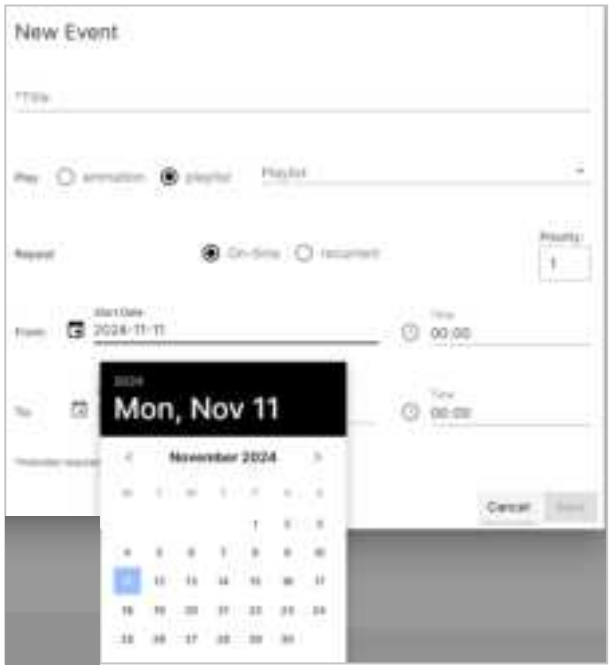
**On this tab you can view and editall events created on the Player at once**

- **Event** - event name
- **Start** - event start date
- **End** - event end date
- **From** - time when the event will be triggered on the specified dates
- **To** - the time when the event will end on the dates indicated
- **Playlist** - the selected playlist that will be played when this event is triggered
- **Priority** - the priority of the order of triggering events (the higher the priority - the more important it is when triggering)

**To create a new event, press** + Add event **.**

In the window that opens, enter the name of the event, select a previously created playlist.

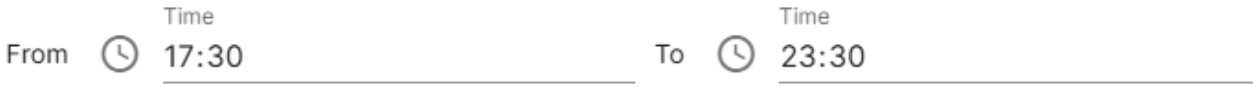
To create an event scheduled on a specific date and time, select On-time , then click on the "Date" section to assign a date for the event in the opened calendar.



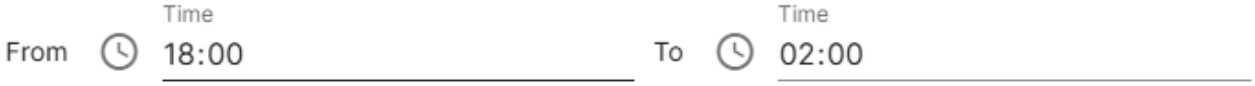
After selecting the date, it is necessary to set the event operation mode,
which can be configured in three ways:

**1. By set time**

To configure the event to play at a given time, you just need to set the desired start time and cut-off time in the fields next to the clock «From» and «To». In this case the event will run in the selected time interval.




If you select an end time after 00:00, the event will automatically advance to the next day.




If the start time is later than the off time, the event will start at the set time and set day, then automatically reschedule to the next day and play until the set time.

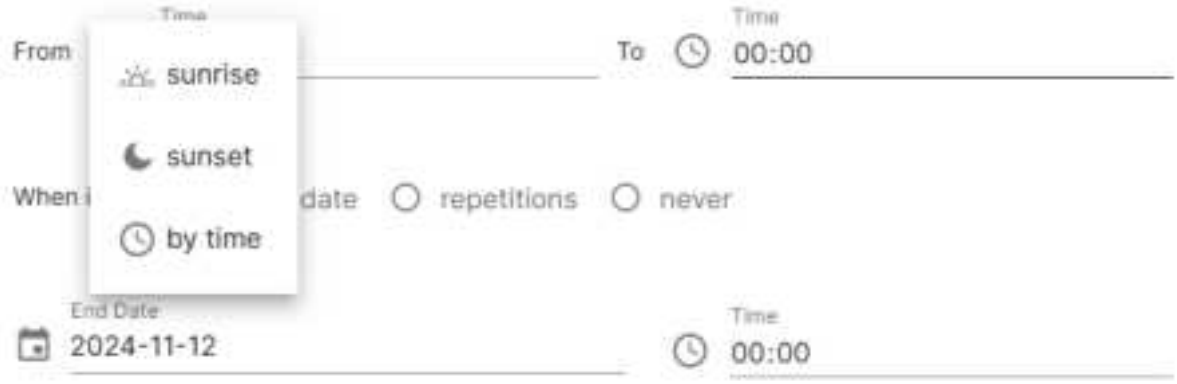

**2. Throughout the day**

To have the event played all day long, you must specify the start time of the event as 00:00 and the end time as 00:00 of the next day.

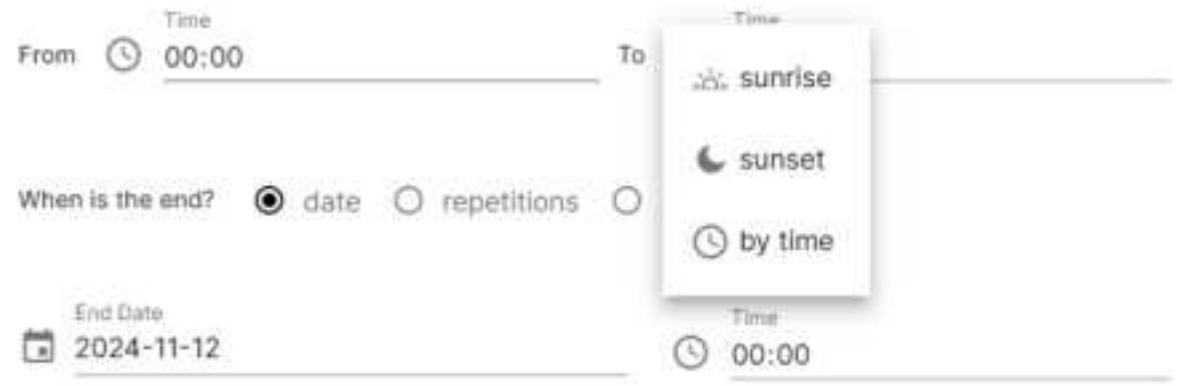

**3. By astronomical relay**

To set the astronomical relay event playback, you need to press on one of the clocks, then the menu will open. one of the clocks to open a menu of choices.

**To enable the event:**




**To deactivate the event:**




Let's consider the most popular variant of triggering an event: Start at sunset and switch off at sunrise.

To set this mode of operation, select «sunset»(moon icon) in the left field,
and in the right field «dawn» (sun icon).


When selecting options other than time-based switching, the selected time of day input field is replaced by a numeric time input field in which the on/off shift time can be specified.

The shift time is set in minutes.

By default, the 'Shift' fields are set to 0 minutes. With such values and such setting (as on the screenshot below) switching on and switching off will occur simultaneously with sunset and sunrise respectively.

The time in these fields can be either positive or negative.

For example, when the shift time settings are set above:

Astronomical time is scheduled to start at 21:36, and this parameter is set to -30 (minutes), with this setting the event will start at 21:06 (30 minutes before sunset)The astronomical time is scheduled to end at 05:32, and this parameter is set to 60, with this setting the event will shut down at 06:32 (60 minutes after sunrise)

The astronomical relay start variants can be combined with each other and configured in different ways

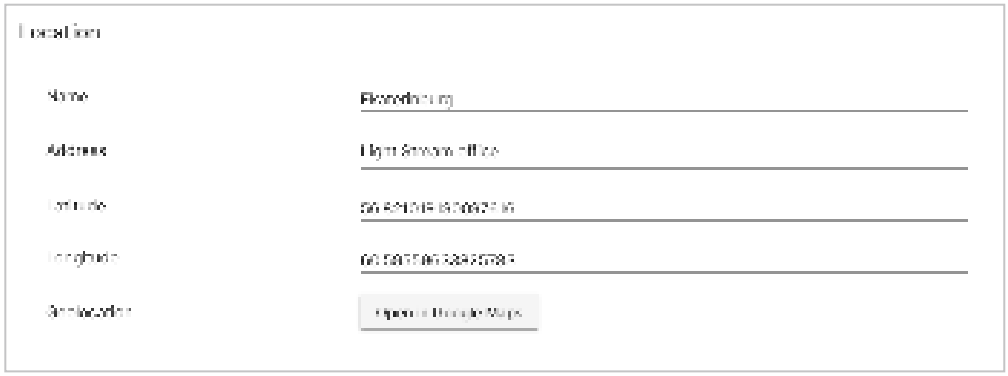
For example, you can set the event triggering mode to start at sunset and switch off by time, e.g. в 22:00:


Conversely, make the event switch on time at 18:00 and switch off at dawn:


**Important,** if you set the values the other way round, switching on at dawn and switching off at dusk, then accordingly the event will work only during daytime.


**Note.** In order for the astronomical relay to work correctly based on the location of the object, in the Player settings you need to specify its exact coordinates, or the coordinates of the city where the object is located.

To do this, go to the **Settings - Location** menu and set the required **Latitude** and **Longitude** parameters.



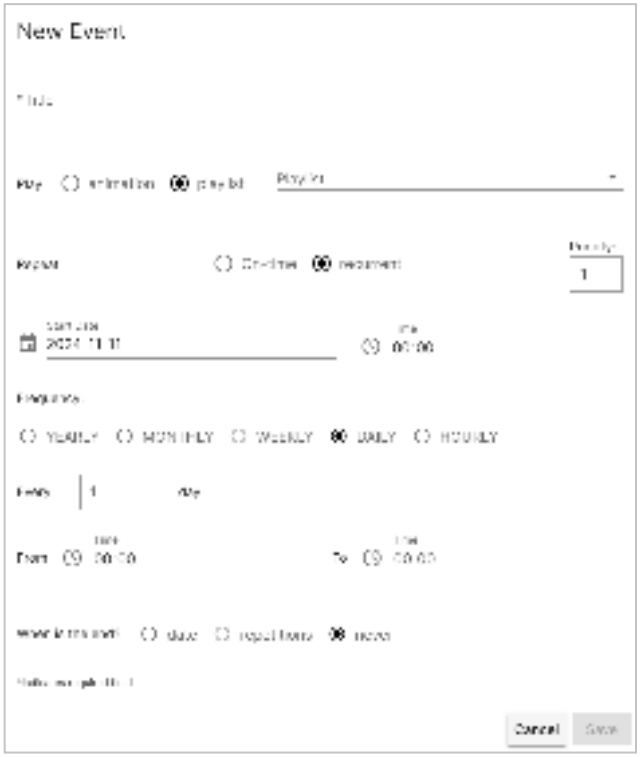
You can find out the coordinates of any object or city using any online maps or internet search. For example, the city of Yekaterinburg is located at coordinates 58.8519, 60.6122 and the city of Moscow at coordinates 55.7522, 37.6156

After the configuration of the event is complete, press the button Save .
After that the event will appear in the calendar on the appointed day.


**To create a recurring event, after pressing , enter the name of the event and select a playlist and selecting a playlist, select** ◉ recurrent **.**

Next, you need to enter the required parameters.

- **Title** - the name of the event
- **Play** - here you can choose whether to play an animation or a playlist from previously created playlists in the Playlists section
- **Repeat** - here you can select the number of of event repetitions and prioritise them
- **Start date and Time** - time and date on which the event becomes operational (this is the date from which the following conditions will be fulfilled)
- **Frequency** - periodicity mode selection
- **From** - start time of this event
- **To** - event end time
- **When is the end?** - event termination parameters



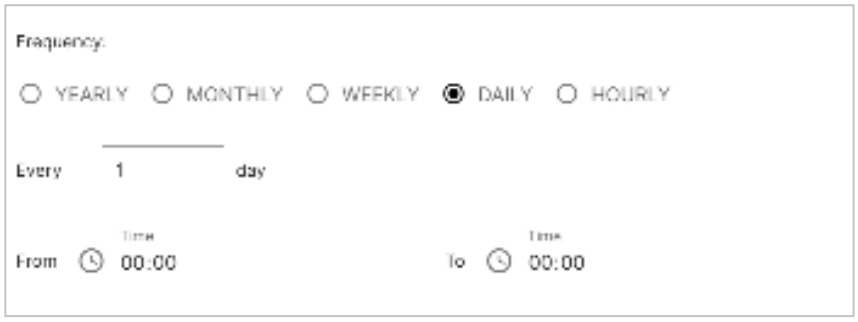

There are several modes for selecting the frequency of a recurring event (Frequency):

- **Yearly** - the event will be launched every year on the specified month and day and time (so you can create events for major holidays, for example, every year on the 8th of March will beevery year on 8 March).

- **Monthly** - the event will be launched every month on the specified days and time (e.g. every new month on the 1st of the month some unique animation will play)


- **Weekly** - the event will be launched every week on the selected days of the week at the specified time (so you can create a unique event for all weekends, which will play only on Sat. and Sun).


- **Daily** - the main parameter that is likely to be used most often the others. The event will be triggered every day at the specified time, if Each = 1, then the event will be triggered every day.



- **Hourly** - repetition at hourly intervals. The time interval is set on a minute-by-minute basis.


For each of the periodicity modes (Frequency) you can set the «When is the end?» option, to indicate when the event should end.

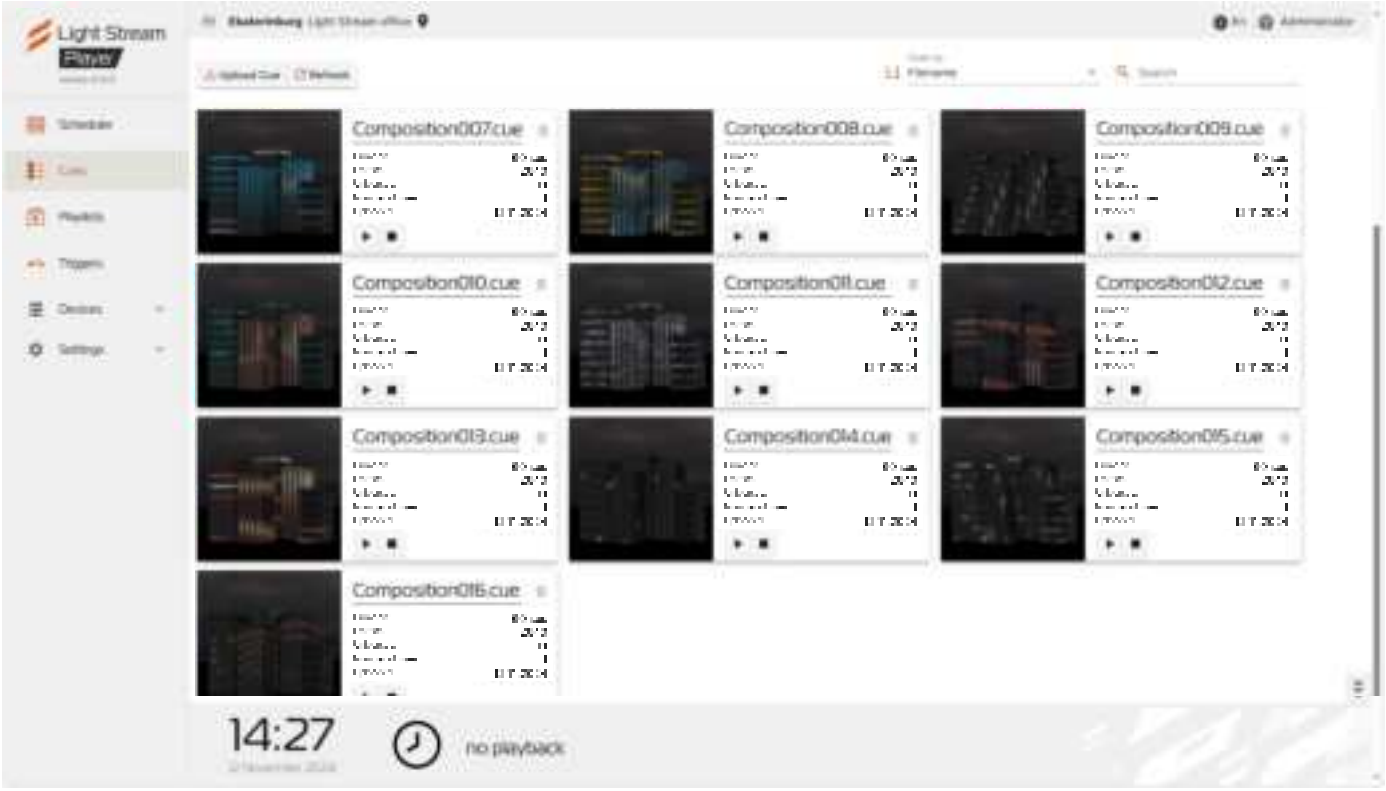
- **Date** - definite end date


- **Repetitions** - selection of the number repetitions


- **Never**


After the event configuration is complete, you should press the Save .
The event will then appear on your calendar on the designated day.

# 4) «Cues» tab.




**The window of this tab contains a list of animations downloaded to the Player.**

The list provides information about the animations that have been downloaded:

- **Duration** – animation duration;
- **Frames** – animation frame count;
- **Universes** – the number of universes involved in the animation;
- **Number of uses** – playlist usage;
- **Uploaded** – download date.

The button is used to load animations Upload Cue .

To select files in the opened window, click on any place in the selection field,

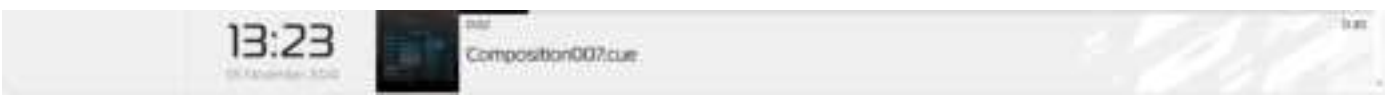

after the list of files to be downloaded appears, click on Upload .

To delete the loaded animation, press the button .

The button is used to update the animations Refresh .

On the tab it is possible to organize animations by their characteristics.

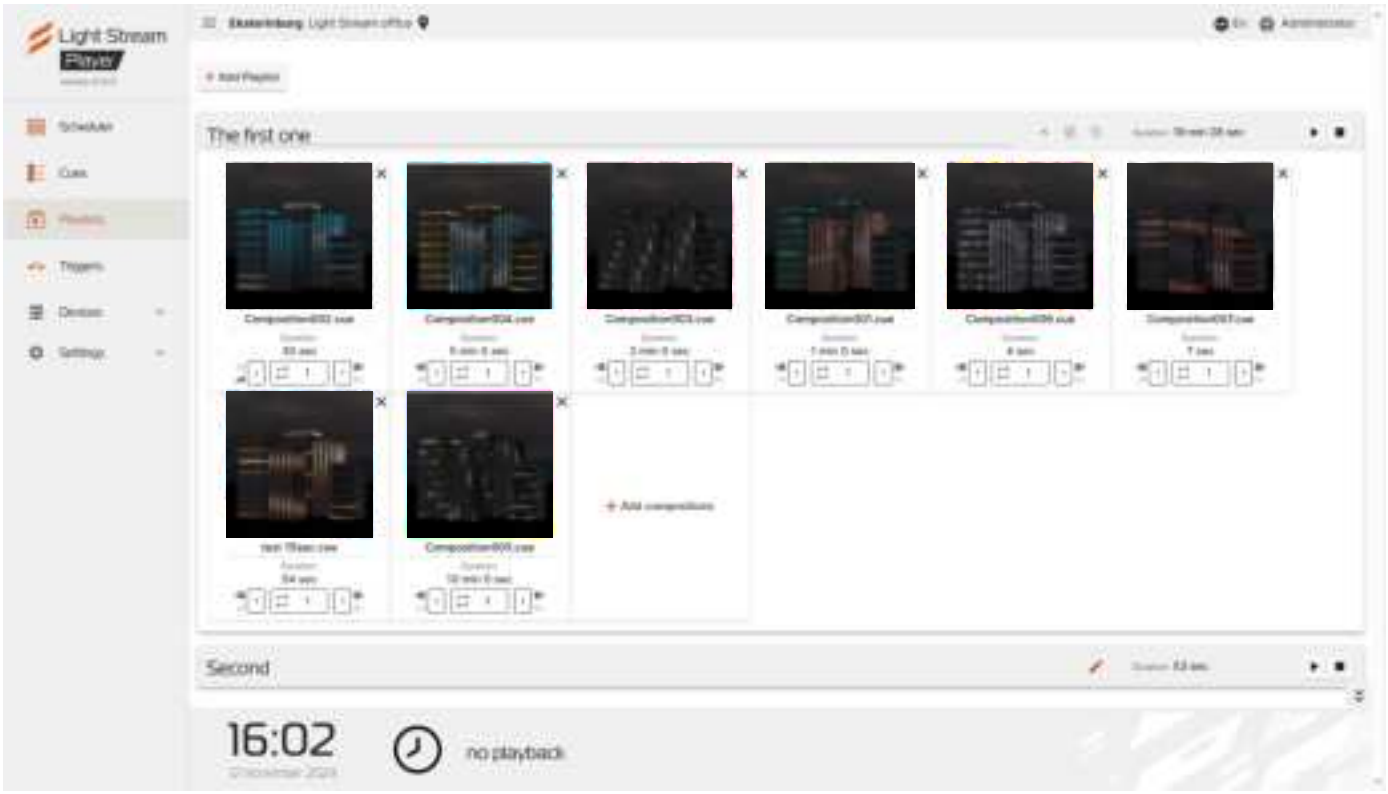
At the bottom of the interface is the animation playback timeline.




When you press the button ▶ animation starts.

When you press the button ■ animation turns off.

# 5) «Playlists» tab.




**This tab window contains a list of playlists.**

When you click on the button all animations installed in this playlist with a demo picture will appear.

To create a playlist, press the button + Add Playlist , in the window that opens enter a name and click Save .

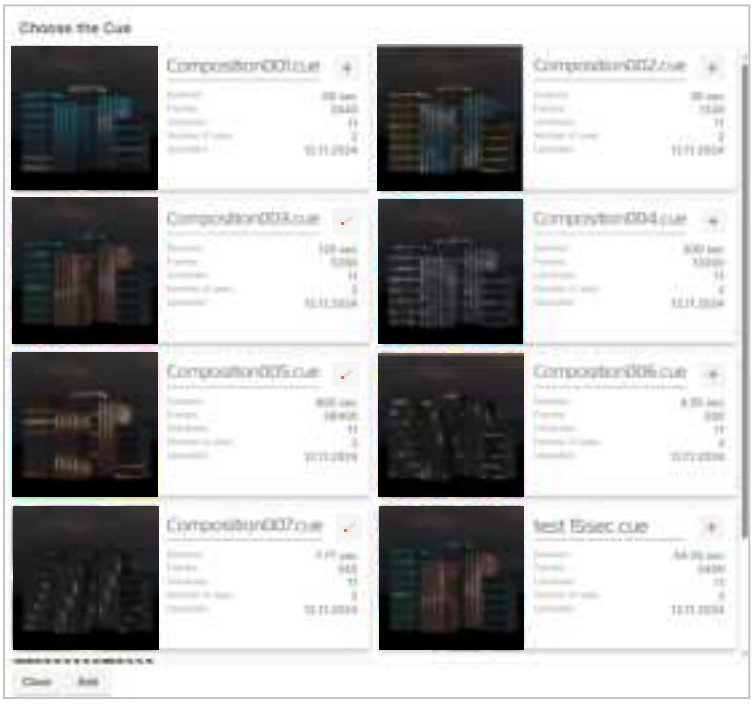
Для добавления анимации в плейлист необходимо нажать + Add compositions .

In the window that opens, select an animation from the previously loaded animations by clicking on + .

Then it is necessary to click on the button Add .

To add multiple animations to a playlist you need to mark desired ones by clicking on + , the selected ones will display image .

Next, click on the button Add and the animations will load into the playlist.



# 6) «Triggers» tab


The Player provides the ability to trigger downloaded animations or playlists by external triggers

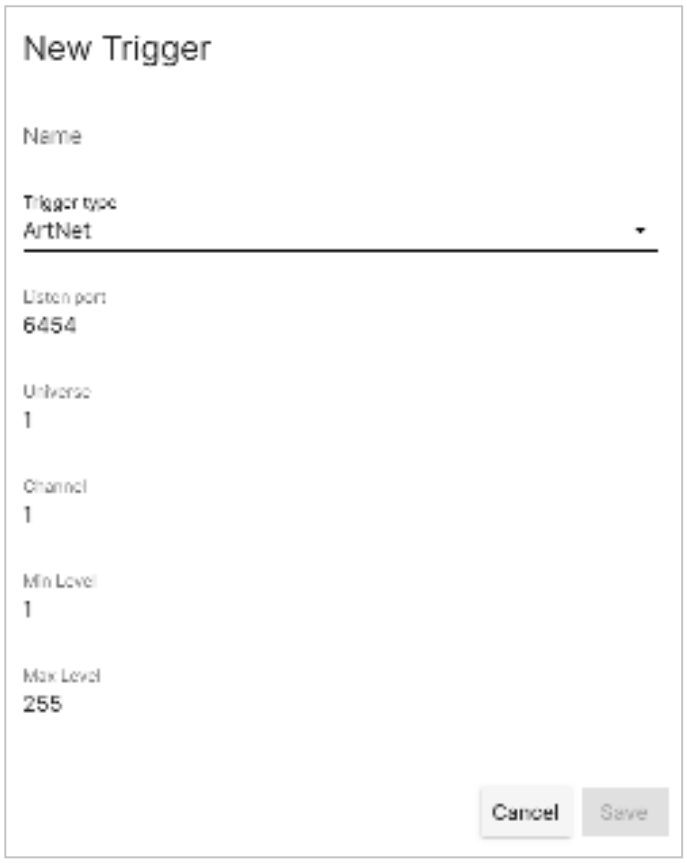
- triggering by Art-Net signal from Converter (or other Art-Net device);
- triggering on Raw UDP message on a specific port.

To add a trigger, press the button Add trigger .
In the window that opens, enter a name (an explanatory name for the list),
select the appropriate trigger type.

**Art-Net trigger:**

In the opened window it is necessary to fill in all trigger parameters:

- **Listen port** – default 6454 (port change must be coordinated with the control device with the control device);
- **Universe** – number of the universe from which the signal will be received;
- **Channel** – number of the channel from which the signal will be received (from 1 to 512);
- **Min Level** – minimum signal level, after reaching which trigger;
- **Max Level** – maximum signal level, after reaching which the trigger is not activated.

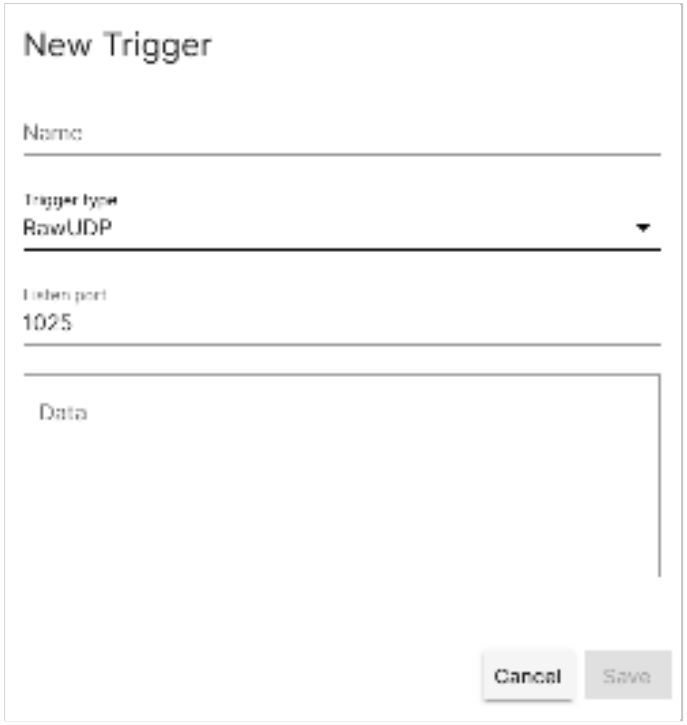



After filling in all trigger parameters, you should save the settings by pressing Save .

**Raw UDP trigger:**

The following fields are filled in for this type of trigger:

- **Listen port** – default 1025 (port change must be coordinated with the control device agreed with the control device);
- **Data** – UDP message content.

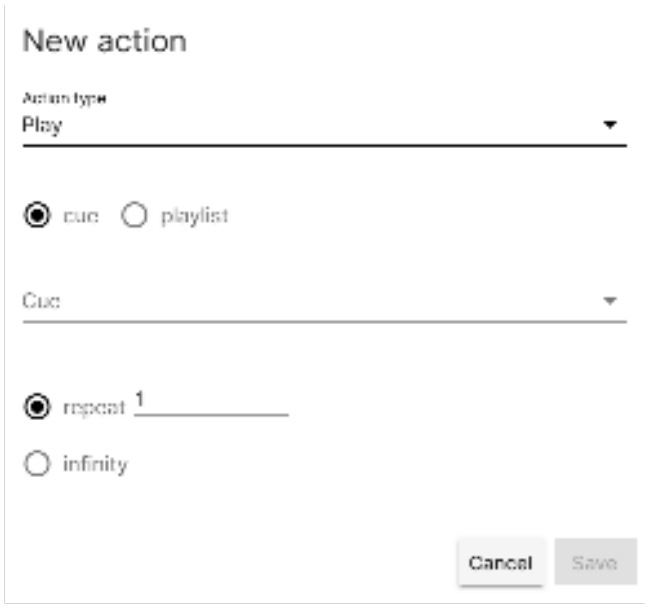


**DI trigger:**

The following fields are filled in for this type of trigger:

- **DI port** – port number
- **Port state** – activated or deactivated.


After adding a trigger, it must be assigned an action,
you can do this by pressing Add action .
In the window that opens, fill in the line with the name of the action and select the action itself (play, stop and set DO port state):




The "play" action involves selecting whether to play an animation or a playlist. 


Also in this window you can specify the number of repetitions, or set the infinite playback mode.


You can use this action to stop playback.


The «Set Do port state» action allows you to select the port number of the device, and assign the «Activated» and «Deactivated» states to it.

Once you have filled in all the action parameters, you must save the settings by pressing Save .

You can delete an action by pressing the 🗑 .

You can delete a trigger by clicking on the line with its name in the list and in the opened window click the button «Delete».

Triggering is indicated by a green signal in the corresponding trigger line.

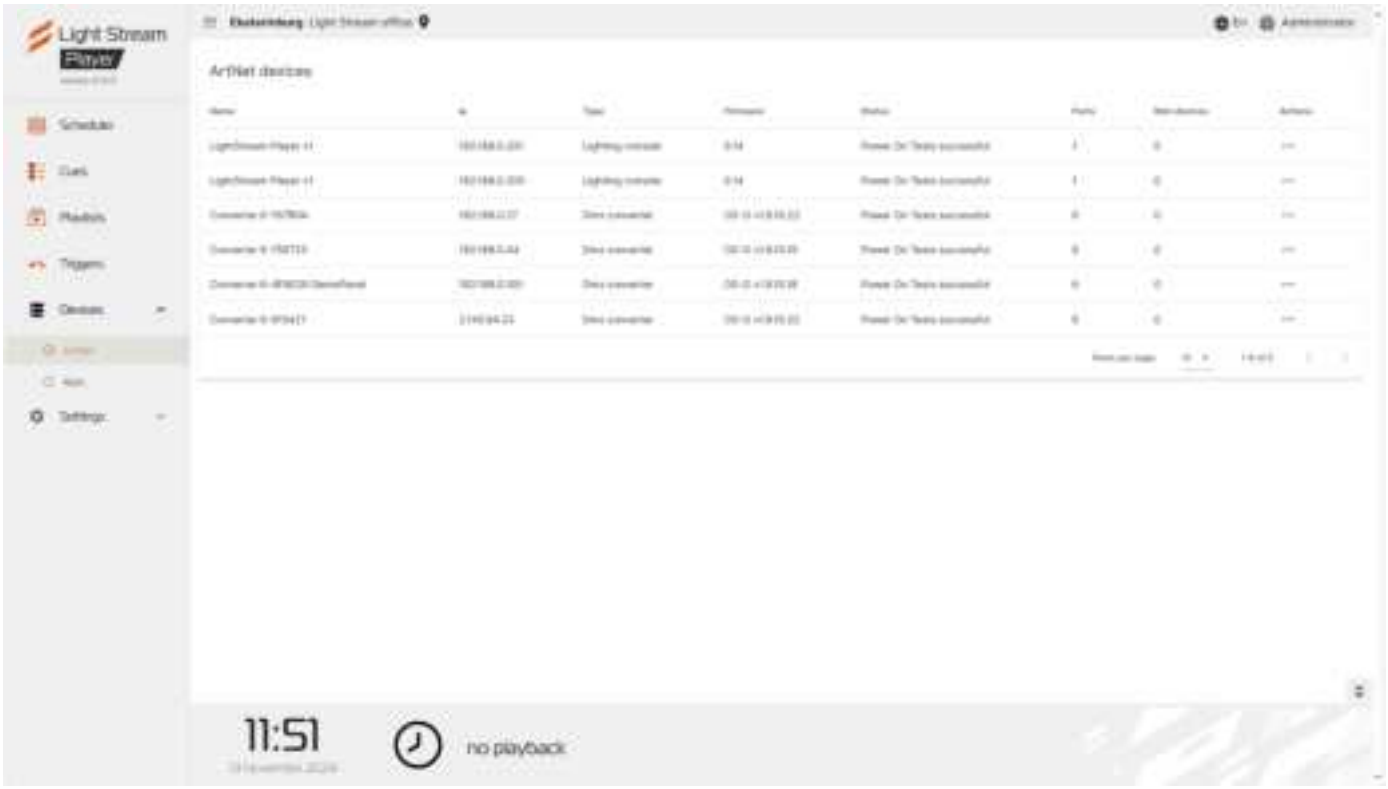



This tab also displays the status of Di and Do ports.

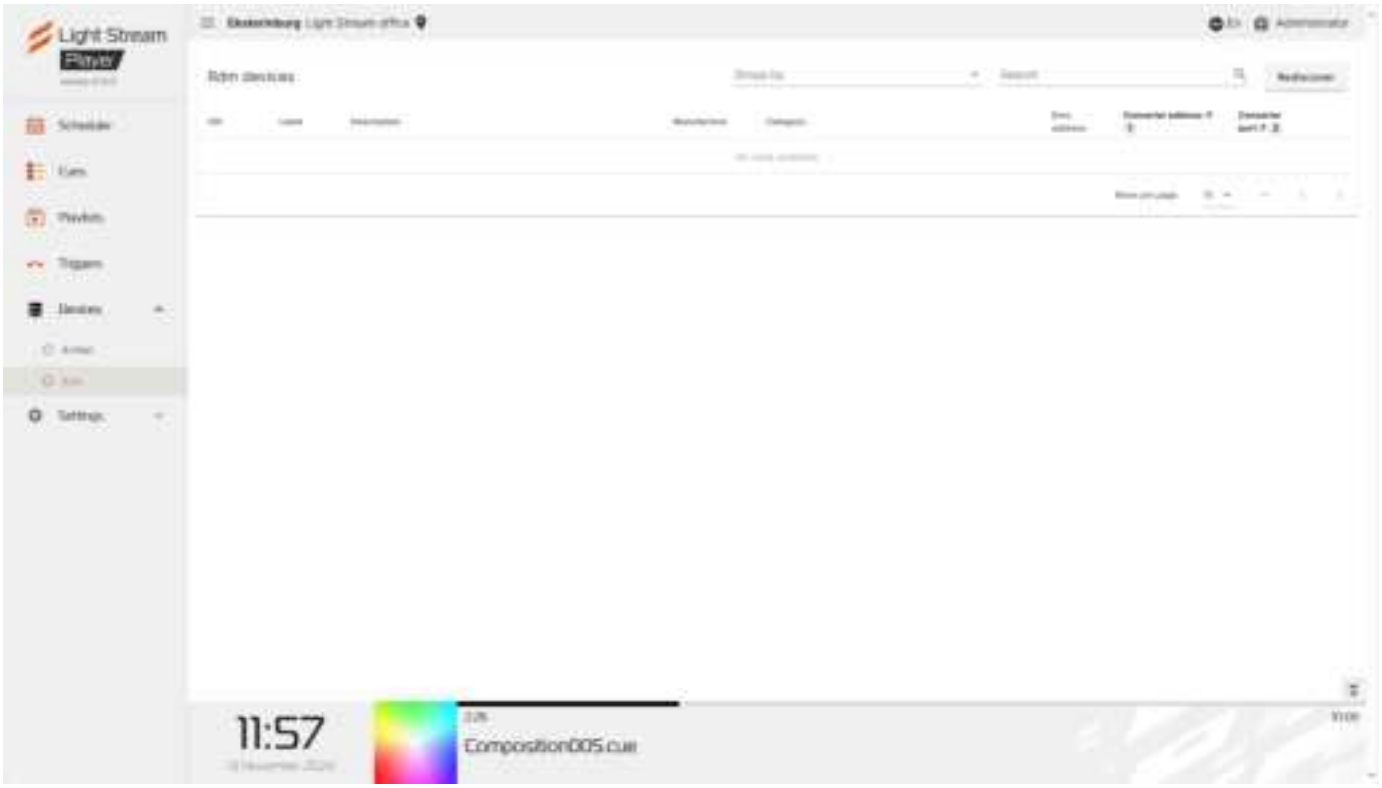
The DI window shows the port status by colour indication.

You can manually enable/disable any port in the Do window.

# 7) «Devices» tab.

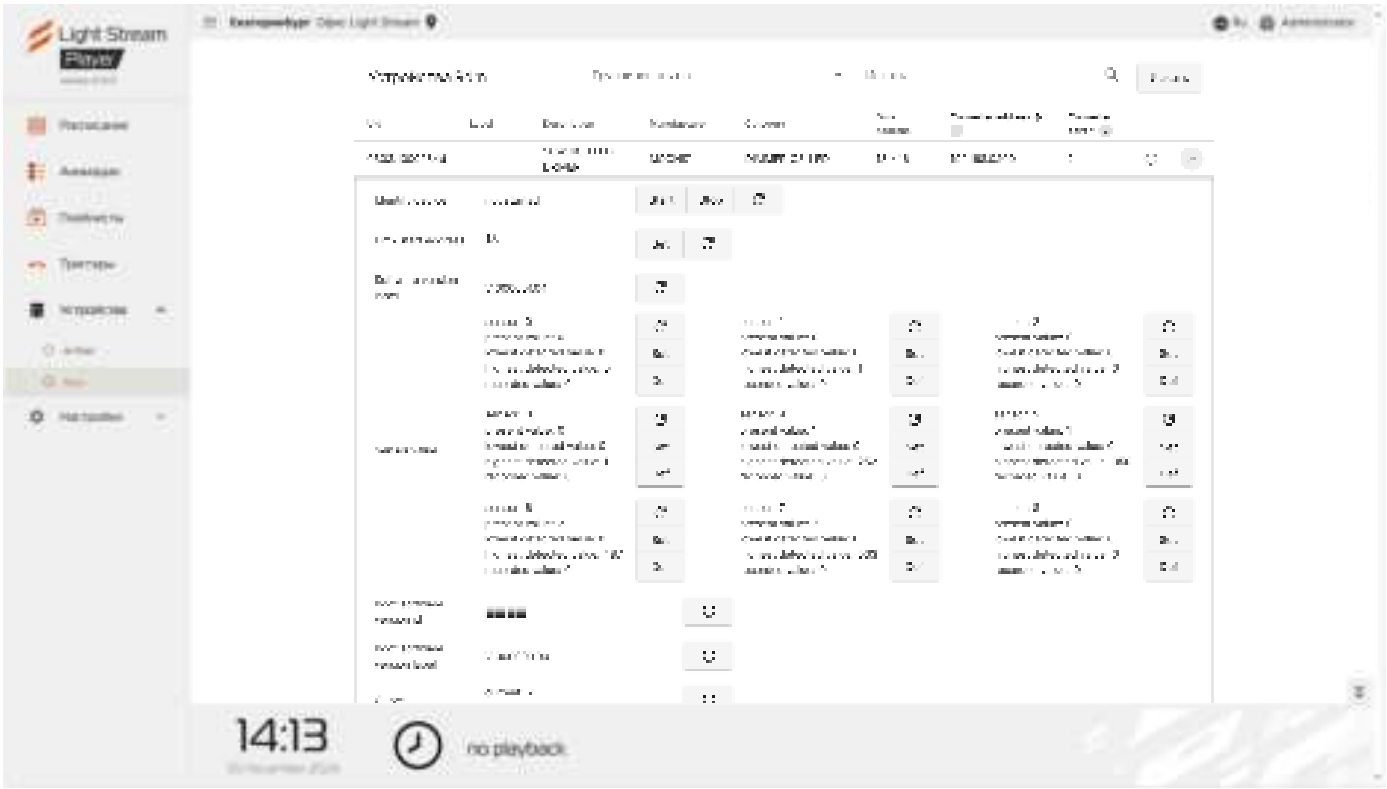



**With Player you can detect and control Art-Net devices.**




**You can also use Player to detect and control Rdm devices.**

To detect Rdm devices, press the button Rediscover .



# 8) Main menu of the interface. «Settings» tab.

# «Player» tab.


On the Player tab in the Basic settings window it is possible to to specify the frame rate per second of animation playback.

**Warning!** The FPS parameter will affect the animation itself, the playback of which may be distorted from the concept originally conceived by the designer (creator of the animation), as well as may affect the performance of Player. on the performance of the Player. It is recommended to use the default value of 44.

In the Serial Interfaces window you can switch between DMX and rs485 modes on the device ports.

# 8.1) «Location» tab.


**On this tab you can specify the name, address, latitude and longitude of the object.**

It is also possible to mark its geolocation using Google Maps, to do this,

click on the button Open in Google Maps .

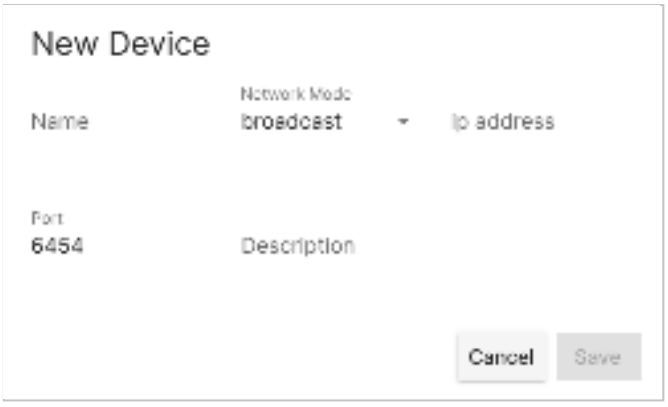
# 8.2) «Universes» tab.


**Art-Net devices and universes are added on this tab.**

To add a device, press the button Add Art-Net converter .

Then in the opened window you should fill in the following fields.

- **Name** (randomly selected)
- **Network Mode** – broadcast или unicast
- **Ip address** – device network address;
- **Port** – by default 6454
- **Description** – additional description device, e.g. name of the panel in which it is located




Next, to save the configuration, press Save .

The added device will appear in the list below:


Use the buttons ✎ 🗑 to edit the configuration of the added Art-Net device or remove it from the list.

**The «Universes» field is used to add universes.**

To add a universe, you must click on ⊕ «Add a Universe» and fill out the following form.


«Number» field indicates the number of the universe (numbering is end-to-end in accordance with the ArtNet v.4 protocol), additionally the number of the universe according to ArtNet v.3 protocol (Net.Subnet.Universe) is shown.

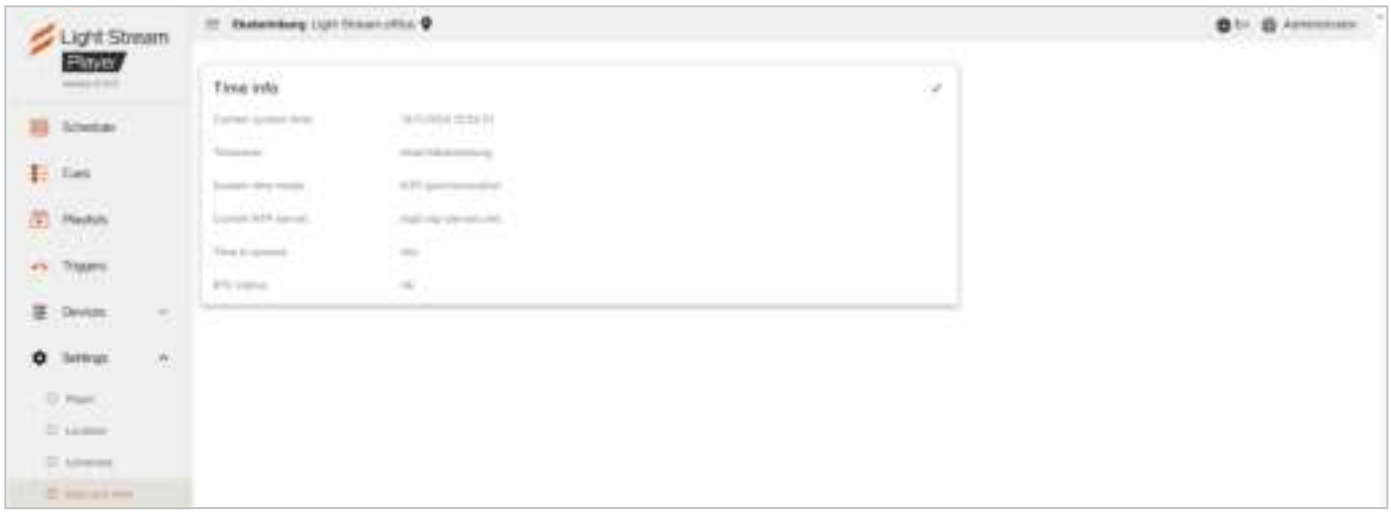
In the "ArtNet Device" field, you select the appropriate device for this universe from the list of entered ArtNet Devices. To save the universe settings, press the button Save .

To delete a universe, you must use the button 

The configuration of ArtNet devices and universes can be imported from the LightStream animation software. LightStream animation software.

**Warning!** It is not recommended to change the configuration of devices and universes without the designer's recommendations. is not recommended. This may affect the overall animation playback.

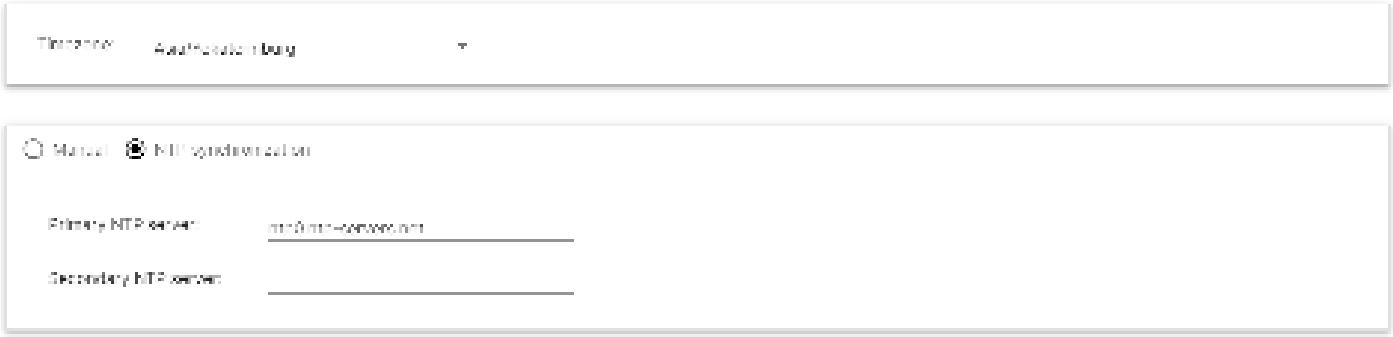
# 8.3) «Date and time» tab.



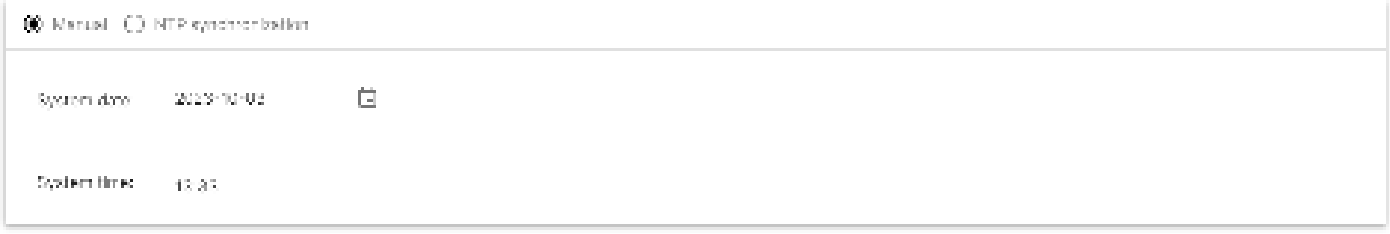

**On this tab there is a field with configuration of date and time settings "Time info".**

- **Current System Time** – current date and time;
- **Timezone** – time zone;
- **System Time Mode** – configuration of the system clock (synchronisation via NTP server or manual setting, operation from the built-in RTC real-time clock);
- **Current NTP Server** – current NTP server;
- **Time is synced** – synchronisation status
- **RTC status** – operation from the inbuilt real-time clock.

To edit the settings, press the button .



In the fields that appear, if necessary, select the time zone, enter the addresses of the required NTP servers (primary and secondary), and also set the date and time manually by selecting the "Manual" mode.



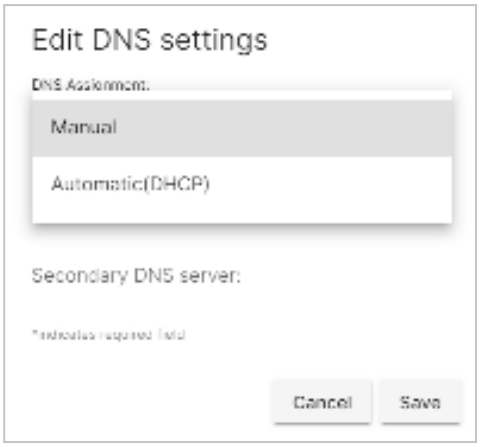
After changing the settings, you should press the button Apply .

**Attention!** These settings may affect the operation of the Schedule mode.

# 8.4) «Network» tab.


**This tab contains fields with basic settings for the Player network interface.**

In the Ethernet window, you can edit network settings both manually and automatically.


The LTE modem window is used optionally (if the user has an LTE modem)

In the LTE modem window you can also edit network settings both manually, or in automatic mode.

In the Change APN settings window, you need to enter the operator data manually.

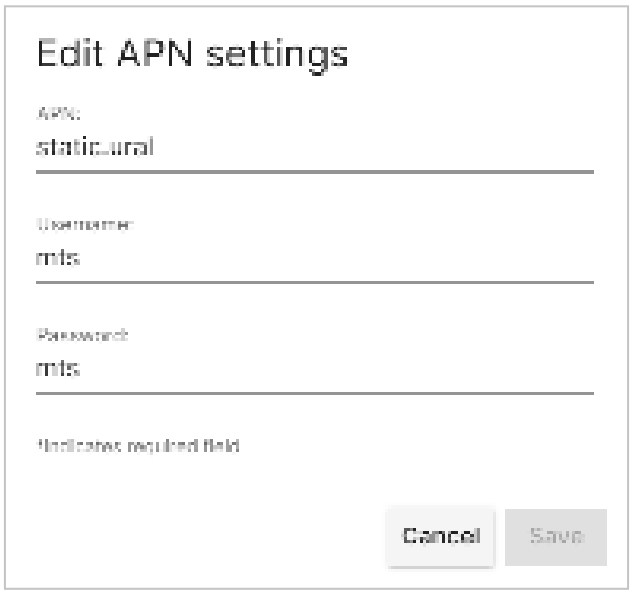
**Changing the network settings on the player.**

To set up backup access via modem it is necessary that the sim card issued by the telecom operator has a static «white» address. It is necessary to obtain connection details (apn server, user name and password) from the telecom operator who issued the sim card.

**To change the settings, follow the steps below.**

On the modem interface card in the APN settings block, click on the **Edit** button.


The **Edit APN settings** form opens.




Specify the settings you received from your service provider.

Click the **Save** button.

**(Optional)** In rare cases it is required to set the ip address manually.

Please check with your service provider. T

o set the ip address, please refer to the corresponding instructions.

# 8.5) «Security» tab.


**This tab is intended for advanced Player customisation and protecting access to the interface by to the interface by encrypting the HTTPS network connection:**

HTTPS protocol provides secure and confidential information exchange between the player's web interface and the user's device. the player's web interface and the user's device.  Thanks to HTTPS-protocol the data you leave on the website will be securely protected and will not fall into the hands of fraudsters. data you leave on the site will be securely protected and will not fall into the hands of fraudsters.

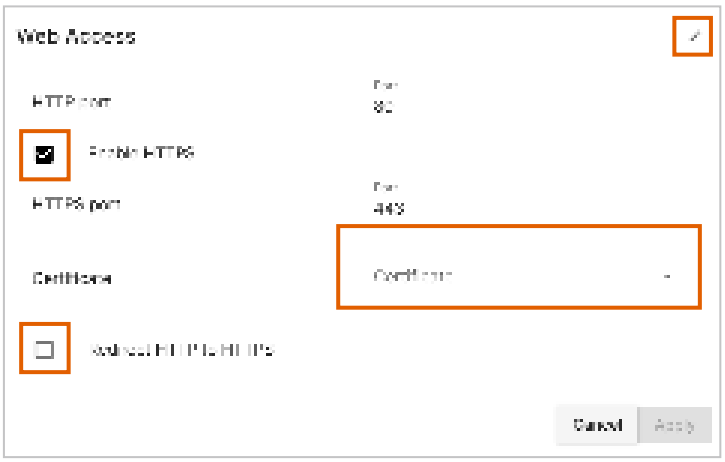
**The «Web Access» field** - HTTPS activation, port and certificate selection.
To edit, press , after the change, press the button Apply .

To enable HTTPS in the Web Access field click .

Tick the **Enable HTTPS** check box.

In the **Certificate** field, select a pre-generated or downloaded SSL certificate. a pre-generated or downloaded SSL certificate.

To redirect and prevent access to the player's web interface via http, tick the **Redirect HTTP to HTTPS** checkbox.




Click the button Apply then refresh the page.

**Downloading a certificate from an external certificate authority.**

An SSL certificate is a digital certificate that authenticates a website and allows you to use an encrypted connection. to use an encrypted connection. SSL stands for Secure Sockets Layer, a security protocol that creates an encrypted connection between a web server and a web browser. SSL stands for Secure Sockets Layer, a security protocol that creates an encrypted connection between a web server and a web browser

**The certificate and private key files must be in pem format.**
**The private key file must not be password protected.**

**«Certificates» field** - downloading or creating certificates.
To download the ssl certificate, click on the button Upload
after which a window for downloading certificates will open.

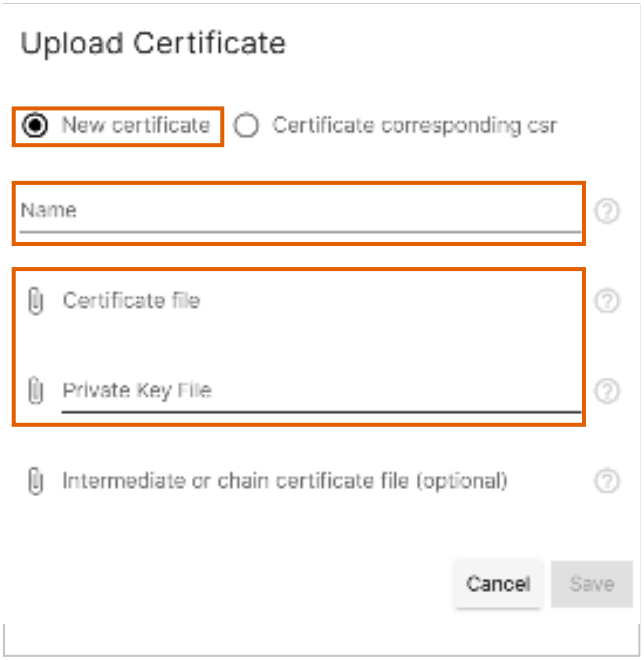

Select **New Certificate**.

Fill in the **Name** field. The name of the certificate must be unique and not used by previously downloaded or generated certificates.

Click the **Certificate File** field and select the ssl certificate file.

Click the **Private Key** File field and select the private key file.

Click the form button Save .




A newly downloaded certificate should appear in the certificate list, which can be used later to configure the https protocol.

**Creating a self-signed ssl certificate.**

A self-signed certificate is a special type of digital certificate signed by its subject.. Technically, such a certificate is no different from a certificate signed by a certification centre (CA), except that instead of sending it to the CA for signing, the user creates his own digital signature.

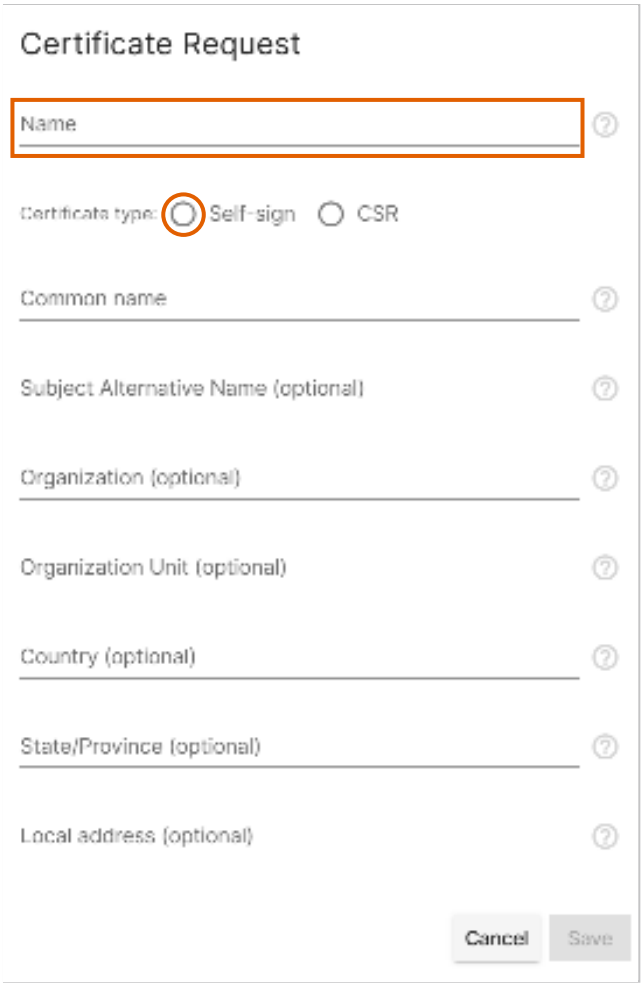
**The self-signed certificate is issued for a period of three years.**

Select the **Certificates field** - download or create certificates
In the **Certificates** block, click the **Generate** button


In the opened form **Certificate Request** form it is necessary to fill in the **Name** field and putmarker in the Certificate type section to the value **Self-sign**. Fields **Common name** and **Subject alternative name** will be filled in automatically.
The rest of the fields are filled in as desired.

Click the form button Save .

The newly created certificate should appear in the list of certificates, which canbe used later for configuration https protocol



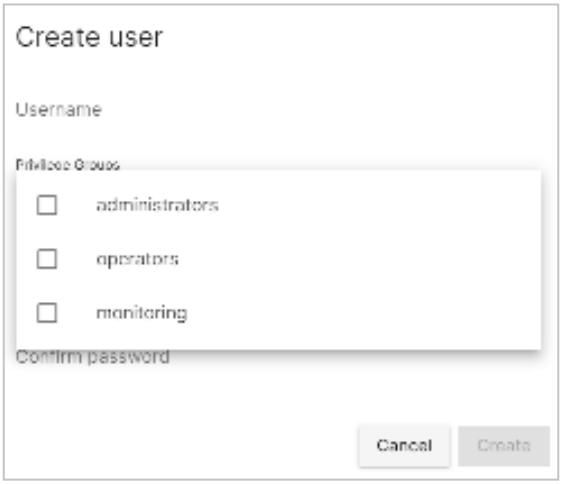
# 8.6) «Users» tab.


**There are 3 groups of Player user privileges:**

- **Administrator** - user who has access to all Player settings.
- **Operator** – user, who has the ability to work with animations, create playlists and scripts, change the Player operation mode (Schedule / Manual control). Access to the settings is closed.
- **Monitoring** – user with monitoring capabilities. All settings, including working animations are closed.

In this tab you can create a user with the possibility to change its access details. This tab allows you to create a user with the possibility to change its access details.

To create a user, press the button Create User .
In the opened window it is necessary to enter the user name in the "Name" column,in the "Privilege groups" submenu select the user type,then enter the password in the "Password" column and confirm it in the "Confirmation" column.
and confirm it in the "Confirm password" column.




After entering the data it is necessary to press the button Create .

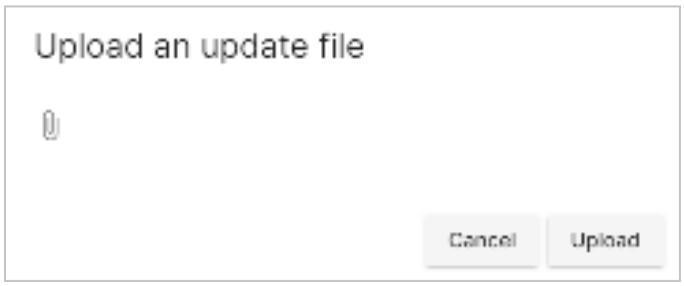
The user will be displayed in the general list.

User details can be changed by clicking on .
You can remove a user from the list by clicking on .

# 8.7) «Update» tab.


**This tab window allows you to update the Player software.**

To do this, press the Upload button, after which a window for downloading the received update will open.




After that the update file will appear in the list. To check the downloaded updates, click the "Check" button, After checking, the "Install" button will appear, after clicking on it the installation will start. It will take a few minutes, after which Player will reboot. The installed update can be rolled back with the "Rollback" button and uninstalled with the "Delete" button.

# 8.8) «Maintenance» tab.


**Player has the ability to create and upload configuration backups**

To create and load a configuration file, press button `Create Backup` ,
after that you will be offered to save the file with * .backup extension.

If you need to restore the Player configuration, you need to press the button `Restore`
then select the previously created configuration file. After loading Player will restart.

In the **Debug info** window you can collect debugging data for calls to the support team.
To do this, press `Collect` .

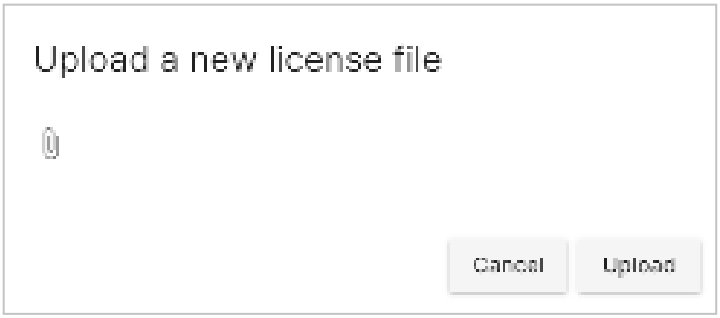
In the **Power control** window, you can reboot the device.
To do this, press `Reboot` .

# 8.9) «License» tab.

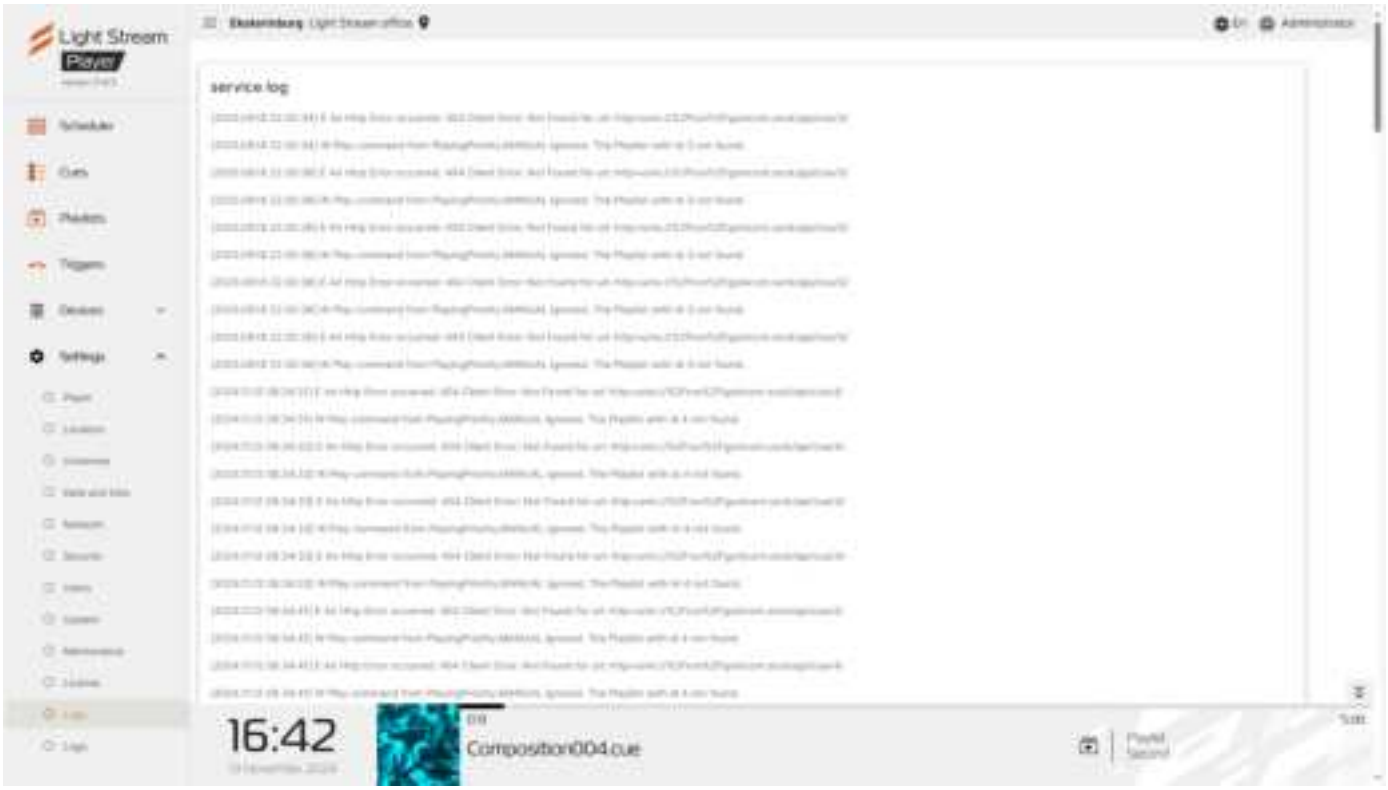

**The window of this tab provides information about the current licence.**

It is also possible to upload a new licence file if necessary.

To do this, press the button Upload new license , after which a window will open with a choice of licence file with *.lic extension.



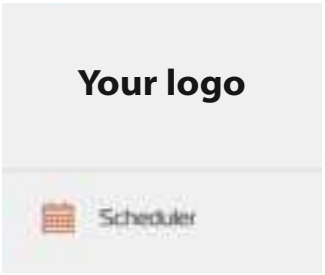
# 8.10) «Logs» tab.



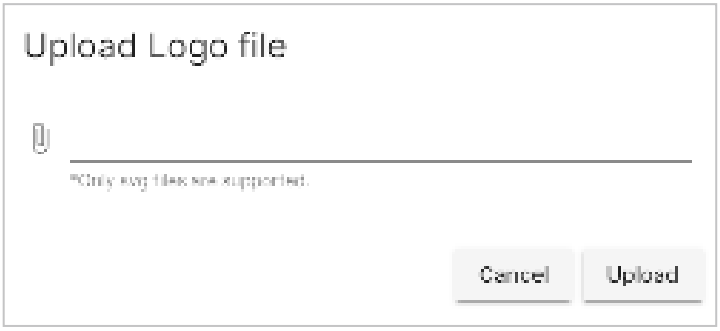

**The logged events are shown in the window of this tab.**

# 8.11) «logo» tab.


**On this tab the user can change the logo, located in the upper left corner to any other logo.**


To do this, press the button Upload and in the opened window select the required logo in SVG format.



# 9) Configuring the GSM module.

**To set up remote access via GSM module, it is necessary that the sim card, issued by the telecom operator has a static 'white' address. It is necessary to obtain connection details (apn server, user name and password) from the telecom operator that issued the sim card. Having obtained these settings we proceed to further steps.**

## Setting up the access point (APN)

**To change the settings, follow the steps below**

**1.** Log in to the player's web interface using an account with administrator privileges.

**2.** From the side menu, select **[Settings] -> [Network].**

**3.** On the modem interface card in the APN settings block, click the button **Edit.**
The form will open **Edit APN settings.**


**4.** Specify the settings received from the service provider.

**5.** Press the button **Save.**

**6.** (Optional) In rare cases it is required to set the ip address manually.
This can be checked with your service provider.
To set the ip address, please use the corresponding instructions in the «Changing the network settings on the player» section of this manual.

**When using a white IP address, and therefore access from the Internet,we strongly recommend using an SSL certificate for security reasons.and enable HTTPS protocol. (How to do this is described below)**

# Creating a self-signed ssl certificate

A self-signed certificate is a special type of digital certificate signed by its subject.. Technically, such a certificate is no different from a certificate signed by a certification centre (CA), except that instead of sending it to the CA for signing, the user creates his own digital signature.

**The self-signed certificate is issued for a period of three years.**

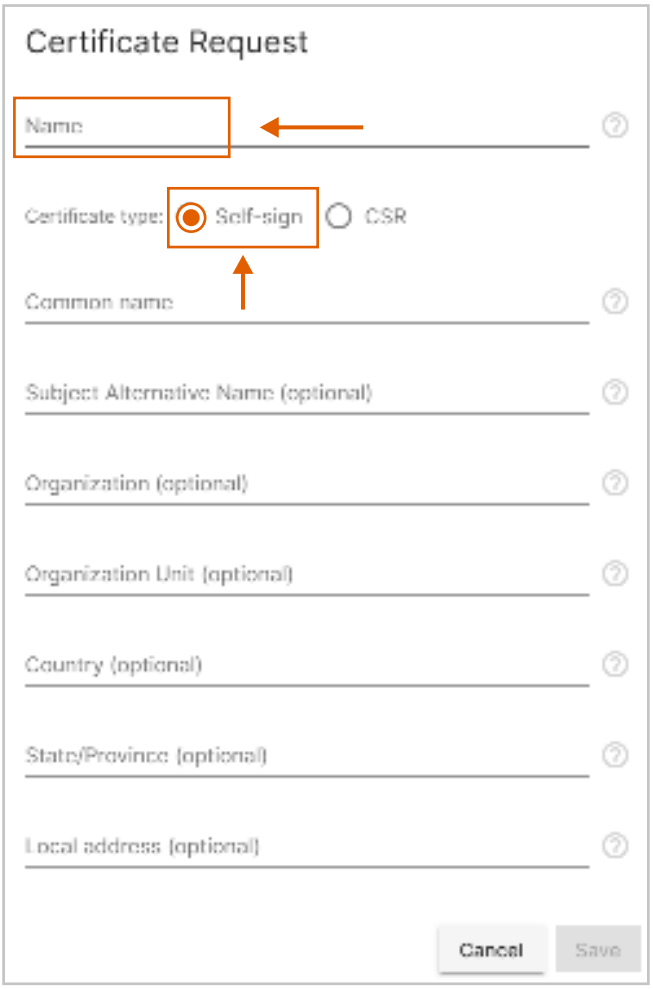
**Steps to create a self-signed certificate.**

**1.** Log in to the player's web interface using an account with administrator privileges.

**2.** From the side menu, select **[Settings] -> [Security].**

**3.** In the block **Certificates** click on the button **Generate.**


**4.** In the opened form **Certificate Request** form it is necessary to fill in the **Name** field and putmarker in the Certificate type section to the value **Self-sign**. Fields **Common name** and **Subject alternative name** will be filled in automatically. The rest of the fields are filled in as desired.




**5.** Click the form button Save .

**6.** The newly created certificate should appear in the list of certificates, which canbe used later for configuration https protocol

# Downloading a certificate from an external certification authority

An SSL certificate is a digital certificate that authenticates a website and allows you to use an encrypted connection. to use an encrypted connection. SSL stands for Secure Sockets Layer, a security protocol that creates an encrypted connection between a web server and a web browser. SSL stands for Secure Sockets Layer, a security protocol that creates an encrypted connection between a web server and a web browser

**The certificate and private key files must be in pem format.**
**The private key file must not be password protected.**

### Steps to download an ssl certificate

**1.** Log in to the player's web interface using an account with administrator privileges.

**2.** From the side menu, select **[Settings] -> [Security]**.

**3.** In the block **Certificates** click on the button **Upload** which will open form **Upload Certificate.**

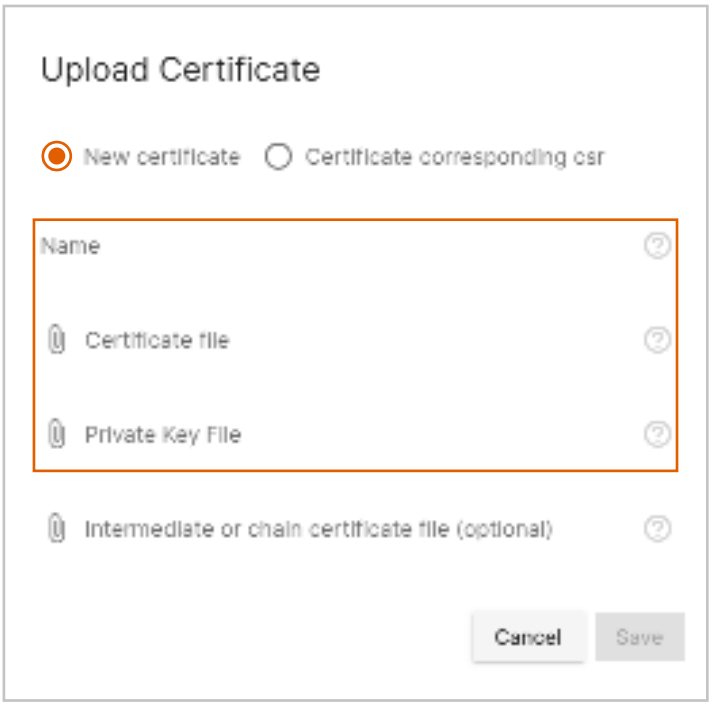

**4.** Fill in the **Name** field**.** The name of the certificate must be unique and not used by previously downloaded or generated certificates.

**5.** Click on the field **Certificate file** and select the ssl certificate file.

**6.** Click on the field **Private Key File** and select the private key file.

**7.** Click the **Save** form button.

**8.** In the list of certificates you should see a newly downloaded certificate that can be used later to https protocol configuration.



# Enabling HTTPS

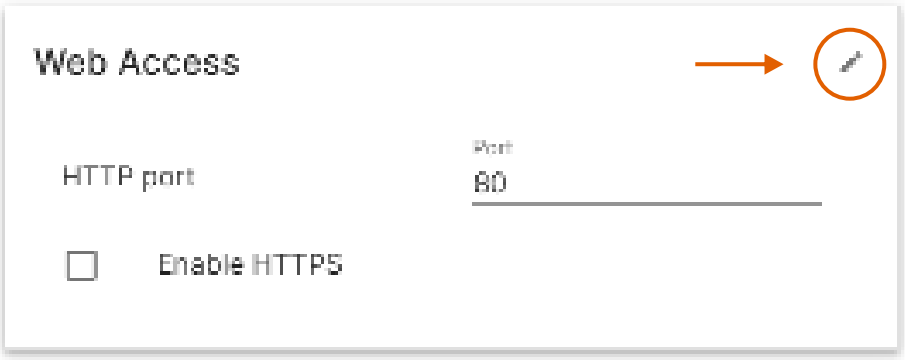
HTTPS protocol provides secure and confidential information exchange between the player's web interface and the user's device. the player's web interface and the user's device.  Thanks to HTTPS-protocol the data you leave on the website will be securely protected and will not fall into the hands of fraudsters. data you leave on the site will be securely protected and will not fall into the hands of fraudsters.

### Steps to activate HTTPS

**1.** Log in to the player's web interface using an account with administrator privileges.

**2.** From the side menu **[Settings] -> [Security]**.

**3.** In the **Web Access block** click on the edit icon.




**4.** Tick the box **Enable HTTPS.**

**5.** In the **Certifikate field** select a pre-generated or downloaded SSL certificate.


**6.** To redirect and prevent access to the player's web interface via http, tick the **Redirect HTTP to HTTPS.**


**7.** Click **Apply** then refresh the page.

# Changing the network settings on the player

**The network interface settings are divided into two parts:**

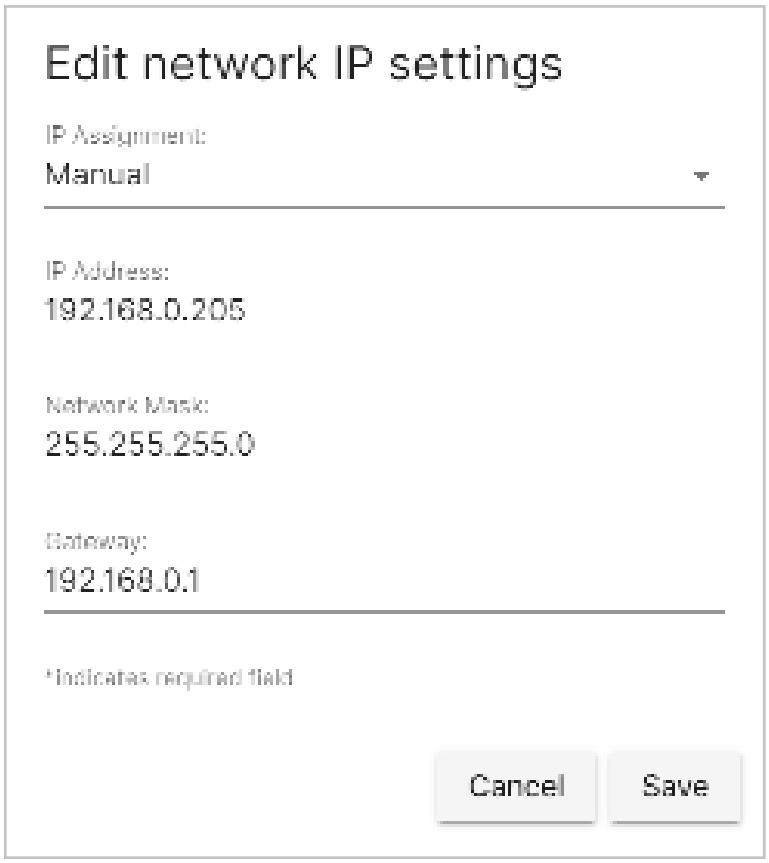
- ip addressing settings
- DNS server settings

**To change the settings, follow the steps below**

**1.** Log in to the player's web interface using an account with administrator privileges.

**2.** From the side menu, select **[Settings] -> [Network].**

**3.** On the card of the interface to which you want to change the settings in the block ip addressing click on the **Edit** button.
The **Edit network IP settings** form opens.

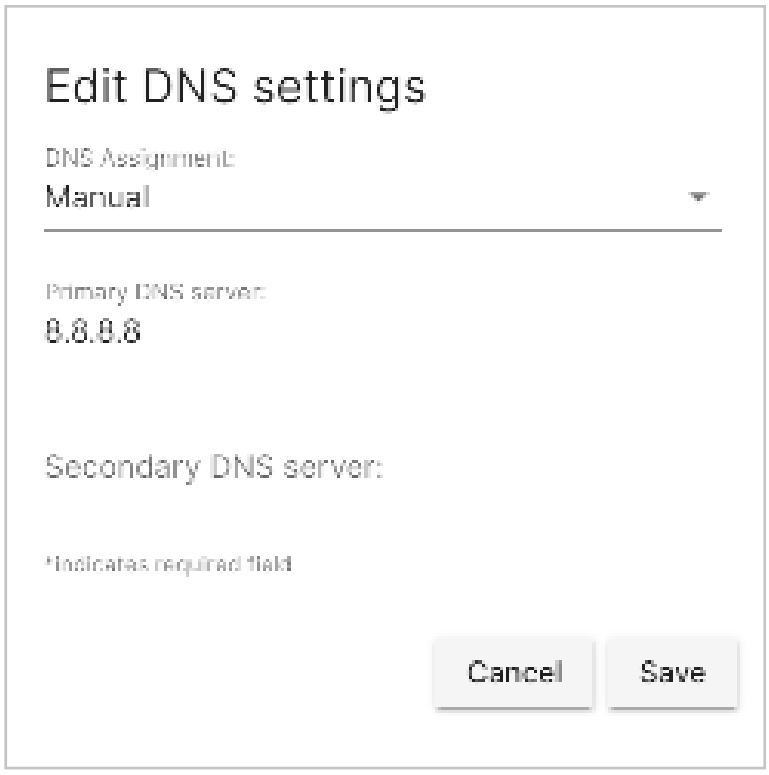



**4.** In the **IP Assignment** field select the method of ip addressing assignment.
Addressing settings can be set manually or received via DHCP.
If you choose DHCP, go directly to point 6.

**5.** Fill in the IP Address, **Network Mask and Gateway** fields

**6.** Press the **Save** button**.**

**7.** (Optional) If you selected the manual method of setting the settings, on the interface card to which you have changed addressing in the DNS block, click the **Edit** button.
The **Edit DNS settings form** will open.




**8.** In the **DNS Assignment** field, select **manual.**

**9.** Specify current dns servers.

**GSM module configuration is complete.**