DiGidot Controller Software Manual

THANK YOU FOR CHOOSING DIGIDOT!

We strive to offer you the latest technology in LED lighting control and we're constantly innovating and expanding our control platform.

We're convinced that you have everything you need to create a truly mesmerizing and innovative piece of light art.

Are you proud of your end result? Then please share it with us, we love to see what you can do with our products!

Your DiGidot team

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INTRODUCTION

The DiGidot Controller Software is a unique and powerful LED controller that allows you to control pixel-controlled LED products through Art-Net, sACN or DMX which are converted to various SPI protocols.

It's built to serve any area where pixels need to be controlled in a small to medium quantity. It can drive up to 2048

INTERFACE

The DiGidot Controller Software has a built-in web interface for configuration.
The interface can be accessed through a web browser by using a wired ethernet or Wi-Fi connection using the IP address of the DiGidot Controller Software (default Ethernet IP address: 10.254.254.254).
You can also use our free DiGidot app for mobile devices with the same functionalities as the build in web interface.

Interface map

This map shows the internal menu structure of the DiGidot Controller Software. Some menu items are only visible in the DiGidot Controller Software Extended.
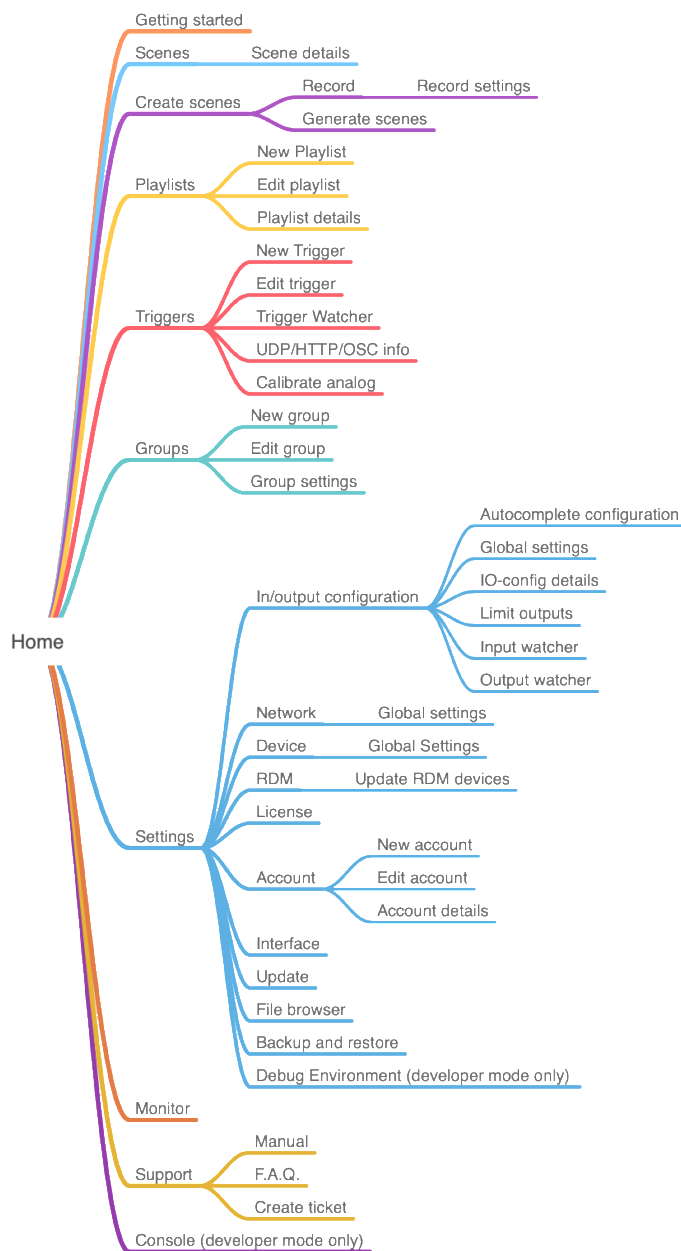
Getting started

In order get started quickly or if you're new to using the DiGidot Controller Software, we recommend using the **'Getting Started'** wizard from the **'Home'** menu. This wizard will guide you through all the essential steps to get the DiGidot Controller Software up and running.
This wizard goes through following steps:

1. Device and network settings
2. Device positioning (in case of multiple devices)
3. Input/Output (IO) configuration
4. Security (Trigger security settings can be changed in the '**HTTP, UDP and OSC**' sub menu on the 'Triggers' page)

Open the user interface and go to the '**Getting started**' wizard.
Follow the instructions carefully and complete the wizard in order to get your system up and running quickly. In case you need more information about a certain subject, you can open the information windows by clicking the blue '**i**' icons.
When the Getting started wizard has been completed, your DiGidot Controller Software controller is ready to use.

Scenes (DiGidot Controller Software Extended only)

A scene is a generated or recorded effect that can be played and triggered. This page contains an overview of all scenes. Click on the scenes to start or stop playing.

Select the pop over menu (3 dots) in the top right, to play, download edit or delete scenes. When playing a scene the player bar will appear. The player bar will show the current selected scene. Expanding the player bar by click the icon at the bottom right, makes it possible to set the speed, hue and brightness of a scene.

Create scenes (DiGidot Controller Software Extended only)

There are two ways to create a scene in the DiGidot Controller Software interface.

Record scene

The record button will become active when an incoming signal is detected. The FPS (frame per second) monitor on the record page will indicate if the incoming signal is good for recording. By clicking the FPS monitor it will show the incoming signal for each DiGidot Controller Software device. This can help to check which device is getting a low FPS signal. To improve the incoming signal, try to set the software that is sending the signal to a higher output FPS rate. We recommend sending Art-Net or sACN at 60 FPS.
To start recording, click the red record button on the underside of the page. A timer starts running until the record/stop button is clicked again.
When the record is completed, you can play and stop the recorded scene. A trimming slider can be used to adjust the beginning and end point of the record. You can choose multiple options before saving the record. Below you can find all record options.

Record options

Time based
Adjust the start and end time to trim the record to its desired length.

Frame based

Adjust the start and end frame trim the record to its desired length.

Find loop

This option detects if there is a loop in the record (within the trimmed section) and automatically creates a looped record.

Trim black

This option detects if there are any black frames at the beginning and end of the trimmed selection and trims the length of the entire record.

No effect

This will keep the original trimmed record.

Fade

This option creates a fading transition from the end to the start of the record. You can manually adjust the fading time before the record is saved.

Note that this option only appears when the record is long enough to generate this effect.

Ping-Pong

This option replays the trimmed record from beginning to end and then from the end to the beginning again.

Recording DMX

Go to Home > Settings > In/out configuration > Select a port and choose 'DMX Input'

In order to record from DMX, you have to configure one or two DMX Input(s) in the I/O configuration.

Record settings

Home > Create scenes > Record settings

On this page you can select and deselect the incoming universes that can be recorded. It will also show the FPS (frame per second) of the incoming signal for each DiGidot Controller Software.

Use Art-Net to start, stop and save records

This option allows you to trigger following record functions: prepare record buffers, start, stop and save records with an Art-Net signal.

To create an Art-Net trigger you need to specify a universe number, a channel number and a minimum and maximum DMX/channel value between 0 and 255, to determine when the event should be triggered. These triggers can also be created manually on the '*Home > Triggers*' page.

Prepare buffers:	This will prepare the DiGidot Controller Software before recording.
	This is required before starting the record. We recommend preparing record buffers 1 second before starting to record.
Start record:	This will start recording. The status LED will become white/blue.
Stop Record:	This will stop recording. Status LED will stop being white/blue.
Save record:	This will save the record and will create a scene. The scene name will be generated automatically.

NOTE: Art-Net triggers can be used without the use of the DiGidot Controller Software interface or app.

Fixed frame rate
If fixed frame rate is enabled (default) the DiGidot Controller Software will record at 62 fps. If the option is disabled, the DiGidot Controller Software will create a frame for each Art-Net, sACN or DMX message, this can be useful when your software is sending at a fixed frame rate for example. Please note that higher fps rates result in larger scene files and thus affects available memory. In most cases we recommend using fixed frame rate.

Select/deselect all
This option allows you to select or deselect all available input universes.

Select inputs to record
Check the universes that you want to record with your next recording.

Generate Scene (DiGidot Controller Software Extended only)

Home > Create scene > Generate scene

Scenes are generated based on one universe and are being copied to following universes and outputs, depending on your I/O configuration.
You can generate three types of scenes, such as:

Static color
This will generate a static color scene.
Enter a RGB(W) value from 0-255 or click on the color picker button to open the color picker page. As soon as the color picker is selected, the current color value will be displayed on all output ports (this can be switched off by unchecking the preview checkbox. Press and hold the color wheel and move around until you've found the desired color, release the color picker to set the color.

Adjust the saturation to add white to the RGB color. When RGBW LEDs are configured, there will be an extra fader to control the white LEDs separately.
Five color presets can be stored or on both sides of the color picker by pressing and holding the preset buttons.
When the desired color is selected, press the check button in the middle of the color picker to confirm.
Click the 'Generate' button to generate a the static color scene, enter a scene name and click save. The new scene will be listed in the scenes page; Home > Scenes.
Colorscroll
This option generates a color scrolling (chase) effect of multiple colors in a user defined order.
The width of a color block is defined bu the color width slider. In order to create black color blocks, set brightness to 0.
Change the color block order by the dragging and dropping the   icon.   ☰
Delete a color block by pressing the trash can button.
Add extra color blocks by pressing the 'Add color' button.
The fade checkbox is switched on per default and creates a fade transition starting in the middle of the width of a color block and ends at in the middle of the next color block. Uncheck the 'Fade between colors' checkbox to create hard color transitions between color blocks.

Two additional parameters can be set, such as speed of the effect and the direction of movement.

Click the 'Generate' button to generate a the colorscroll, enter a scene name and click save. The new scene will be listed in the scenes page; Home > Scenes.

Test Scene

This option generates a predefined color scrolling (chase) of in base colors (red, green, blue, white) effect which is useful to quickly test your setup.

Click the 'Generate' button to generate test scene, enter a scene name and click save. The new scene will be listed in the scenes page; Home > Scenes.

Playlists (DiGidot Controller Software Extended only)

Home > Playlists

A playlist is a list that contains one or more scenes in a user defined order that are played according to a set of predefined parameters. Scenes contained in a playlist can also be triggered by "next" and "previous" triggers.
The parameters that can be defined are:

Scene order
When the scenes have been added to the playlist, you can drag and drop scenes in any order with
The ☰ icon.

Action output
In case that there are multiple DiGidot Controller Software devices present in your network, you can assign which devices have to play a specific scene.

Repeat
The number of times that a scene is played.
By setting the repeat or duration to 0 the scene will play infinitely until the 'next' or 'previous' action is called (by interface or trigger).

Duration
The playtime duration in which the scene is (re-)played.

Fade time
This is the transition time of the cross fade between scenes. The simple fade will create a fade using the same fade in and fade out time. The fading curve will be linear and there will be no delay. when using the advanced fade, you can control the fade in, fade out, delay and curve of the fade.

Playlist options

Click the 3 dots icon in the top right blue bar when editing a playlist. A pop-up with the playlist options will show.

Global settings
These input values will be applied to all scenes inside the playlist. This can be used for fast configuration.

Playlist settings
By default a playlist will loop trough all scenes and start again at the begin if the last scenes is ended. When disabling the 'repeat infinitely' option, you can set the number of loops of a playlist and you can select an action after the loops are finished.

Triggers (DiGidot Controller Software Extended only)

Home > Triggers

The DiGidot Controller Software Extended is able to use a wide variety of triggers to control various events.
Triggers can be used to control following events: Play scene(s), Play playlist(s), Action list, Stop, Next, Previous, Speed, Brightness, change color, saturation filter, Record, Reset, send UDP message, send OSC message, etc.
The configuration is based on an "if this then that logic" where the "if" condition is defined by the input(s) and the "that"

condition is defined by is defined by one or more actions.

There are two options for triggering;

Triggers*: This is the standard way of triggering events, based on an 'if this that that' logic.*
Example 1: If the circuit of dry contact 1 (analog input 1) is closed, start playlist 1.
Example 2: If channel 10 of Art-Net universe 1 is between value 100 and 255, play scene at brightness 50%.

Linked triggers*: Link inputs to effects, such as speed, hue, saturation, etc.*
Example 1: Link an analog input permanently to control the playback speed.
Example 2: Link an incoming OSC channel to brightness.

Creating triggers

Click + to create a new trigger and choose from the following "If this.." trigger options.
You need to select the device(s) where the trigger needs to be activated.
On the right side of the screen, you need to select the device where the action must be executed.
This can be done by clicking the blue top buttons in the 'If this.. Then..' row, that will show a list of available devices in the network.
After configuring a trigger, click '**SAVE**', enter a trigger name and save it. The newly created trigger is then listed in the 'Triggers' overview.

Trigger inputs

The trigger will be executed when all "if" conditions are fulfilled. Multiple inputs can be selected to create a wide variety of triggering conditions.
Following inputs can be created or combined:

Analog triggers

Home > Triggers > select '+' to add a trigger > select 'Analog'

The DiGidot Controller Software Extended has three analog inputs that can be used to control or trigger various events.
Please make sure that the analog inputs are properly connected before you start using them.
Before creating analog triggers, it's advised to calibrate the analog inputs.

Analog input calibration

Go to: Home > Triggers > Click the three dots in the top right blue bar > Calibrate analog

For the analog input calibration it is required that the analog inputs are wired properly to the incoming analog signal. Also check if the controlling device (if applicable) is powered.

Make sure you are working on the correct device or select the right device from the top selection bar. Follow these steps to calibrate the analog inputs:

1. Send the maximum control value of analog input 1 (e.g.: turn the 0-10V dimmer up to its maximum) and press the 'SET MAXIMUM' button.

2. Send the minimum control value of analog input 1 (e.g.: turn the 0-10V dimmer down to its minimum) and press the 'SET MINIMUM' button.

Repeat these steps for analog inputs 2 and 3 (when they are in use). Use the sliders on the bottom of this window or enter specific values to manually adjust the analog input ranges.
When all inputs have been calibrated, press 'SAVE'.

Creating analog triggers

There are four different ways to use the analog inputs:

- ‣ Push button or switch
- ‣ 0-10V dimmer
- ‣ 0-10V control signal from an external control system
- ‣ Potentiometer (50kΩ)

If this..

This menu shows the available input options.

- ‣ Analog channel: Select the analog channel 1-3 that you want to use for triggering.
- ‣ Analog type: Select the type of analog trigger. Use a dry contact or analog value.
- ‣ Event: Define the trigger event/state and optional delay or duration of the event.

Art-Net, sACN or DMX triggers

Home > Triggers > click '+' to add a trigger > select 'Art-Net, sACN or DMX'

You can use Art-Net, sACN and/or DMX to trigger various actions.

Art-Net/sACN triggers (default)

If this..

- ‣ Input universe: Select the input universe of the incoming signal.
- ‣ Channel: Select the channel that is used for this trigger.
- ‣ Minimum: Define the minimum channel value (0-254)
- ‣ Maximum: Define the maximum channel value (1-255).

DMX triggers

How to configure ports as DMX in?

You can configure the ports D1-D2 to a DMX input.

If all ports are already in use you have to re-configure the input/output configuration:

Home > Settings > In/out configuration

> NOTE: DMX uses two lines for data; DMX + and DMX – and therefore requires two DiGidot Controller Software ports.

If this..

- ‣ Select DMX port: Select the DMX port where the trigger signal is coming from.
- ‣ Channel: Select the channel that is used for this trigger.
     Minimum: Define the minimum channel value (0-254)
     Maximum: Define the maximum channel value (1-255).

Power up

Home > Triggers > select '+' to add a trigger > select 'Power up'

This trigger will perform an action as soon as the DiGidot Controller Software booted or when the device is rebooted after performing a system restart.

If this..

‣ Automatically starts after DiGidot Controller Software start up

Onboard button

Home > Triggers > select '+' to add a trigger > select 'Button'

The onboard button of the DiGidot Controller Software can be programmed to trigger various actions.
This feature is very useful for portable LED applications and demonstration setups.

If this..

‣ Button event: Select the preferred button event.

‣ Delay/duration (optional): Add a delay or duration in seconds to a button event.

Time/date

Home > Triggers > select '+' to add a trigger > select 'Time/date'

The DiGidot Controller Software has a build-in clock to trigger various time based actions.

Automatic sync time

Every time the interface is loaded, the browser/app time will be used to synchronize the DiGidot Controller Software time and date. Once the time and date are set, the on-board battery will keep the internal clock running. Automatic sync of time and date can be disabled in the device settings and allow for manual date/time override.

Home > Settings > Device > deselect 'Sync time and date' automatically

Time accuracy

Please consider following regarding Time keeping accuracy:
The internal clock (RTC) has a deviation of 0.0038%, which means effectively that the clock can drift up to 30 seconds a year.
In order to resynchronize the RTC, the DiGidot Controller Software (network) must be connected to a computer or to the DiGidot Controller Software app and the interface must be loaded. The DiGidot Controller Software will then automatically obtain the local real time and will reset its RTC.

If this..

Select '**TIME PERIOD**' for triggers that have to be active during a specific time frame.
E.g. A trigger is created with a time frame from 10 AM till 12 AM. When the DiGidot Controller Software is powered within this time frame, it will execute the associated action. The action will not stop at the end of the time frame (12 AM). You will need to create another trigger to stop the action at 12 AM. In the time frame it's possible to overwrite the action manually or with another trigger.

TIME PERIOD:

‣ Every: Repeating frequency of this trigger, e.g. every 'day' or every 'week' etc.

‣ Start: Define the time that marks the beginning of the time frame.

‣ End: Define the time that marks the end of the time frame.

Select '**TIME**' for triggers that have to be activated on specific times. These triggers will be fired only once when the defined time is reached. The DiGidot Controller Software will not activate the trigger retroactively.

TIME:

- ‣ Every: Repeating frequency of this trigger, e.g. every 'day' or every 'week' etc.
- ‣ Time and period fields: Define a date, time, period, etc. (multiple inputs possible depending on chosen frequency).

Digital trigger commands

You can send specific commands from external systems and devices to trigger various actions. These digital triggers are very useful for system integration and automation.
This also allows users to incorporate control over the DiGidot Controller Software in other software programs.

Detailed API information can be found in our DiGidot Controller Software API document on our website, go to digidot.eu/support/documentation

If you need further API information, please contact us.

OSC

Home > Triggers > select '+' to add a trigger > select 'OSC'

OSC (Open Sound Control) is a protocol that is often being used in audio and video applications in order to send data over a network. Due to the open and easy to use standard and various low cost OSC applications to create user interfaces, this protocol is ideal to be used in lighting applications.

There are various third party OSC applications that reported to work in combination with the DiGidot Controller Software. A few apps that we can recommend are TouchOSC from hexler.net, Lemur from Liine or Ctrl from ON LX Ltd. Please note that DiGidot does not offer any support for third party apps and software. The DiGidot Controller Software only supports messages with the float type.

Enable OSC trigger
Before creating OSC triggers, OSC must be enabled first. This can be done by creating an OSC trigger and press the '**enable**' link or do the following steps:

1. Go to: *Home > Triggers > click on the 3 dots in the top right blue bar > select 'HTTP, UDP and OSC'*
2. Enable the OSC triggers option and click the 'save' button.

Add an OSC trigger
An OSC trigger can be created in two ways:

1. **Learn an incoming OSC Address**
   Press the 'LEARN' button and send the Address from an OSC app or software.
   Note that the OSC sending application must be connected to the DiGidot Controller Software network and the correct IP address of the recipient must be set.

2. **Enter an OSC Address manually**
   Enter the same Address that is used by to the OSC app or software.

After saving the OSC trigger it will be listed in the Triggers overview. Use the copy button in the trigger item to copy the OSC command and paste it to your software program.

Address for OSC editor

If an OSC Address has been entered in the trigger first, the same Address needs to be copied in the OSC editors address field (deselect 'Auto' in TouchOSC).

We recommend to create the OSC interface first, then create the triggers and use the learn function automatically copy the OSC addresses that are associated with the OSC interface buttons and sliders.

UDP

Home > Triggers > select '+' to add a trigger > select 'UDP'

UDP is a small message send over the network port. The DiGidot Controller Software can receive UDP messages. This can be useful if other software needs to control the DiGidot Controller Software controller. UDP is mostly used by developers. Downside of using UDP instead of HTTP is you will not get a conformation if you send a message, but UDP has slightly better performance.

Enable UDP trigger

In order to be able to create UDP triggers, it must be enabled first. This can be done by creating a UDP trigger and press the '**enable**' link or do the following steps:

1. Go to: *Home > Triggers > click on the 3 dots in the top right blue bar > select 'HTTP, UDP and OSC'*
2. Enable the OSC triggers option and click the 'save' button.

Add a UDP trigger

Home > Triggers > select '+' to add a trigger > select 'UDP'

A UDP trigger can be created in two ways.

If..

1. **Learn an incoming UDP message**
   Press the '**LEARN**' button and send the message from an UDP app or software.
   Note that the UDP sending application must be connected to the DiGidot Controller Software network.

2. **Enter an UDP message manually**
   Enter the same message that is used by to the UDP app or software.

After saving the UDP trigger it will be listed in the Triggers overview. Use the copy button in the trigger bar to copy the UDP command and paste it to the desired destination.

HTTP

HTTP GET is a message send over the network port. The DiGidot Controller Software can receive HTTP Get messages. This can be useful if other software needs to control the DiGidot Controller Software controller. HTTP Get is mostly used by developers. Benefit of using HTTP instead of UDP is you will get a conformation if you send a message, but UDP has slightly better performance.

Enable HTTP trigger

In order to be able to create HTTP triggers, they must be enabled first. This can be done by creating a HTTP trigger and select '**enable**' or do the following steps:

1. Go to:
Home > Triggers > click on the 3 dots in the top right blue bar > select 'HTTP, UDP and OSC'

2. Enable the HTTP triggers option and click the 'save' button.

Add an HTTP trigger

Give the trigger a name when saving and a HTTP get URL will be created for triggering. You copy and past the URL in your browser to test the trigger.

If this..
Use the IP address of the selected device in order to send the HTTP command to the right device.

After saving the HTTP trigger it will be listed in the Triggers overview. Use the copy button in the trigger bar to copy the HTTP command and paste it to the desired destination.

Internal task

This trigger can be used to trigger events when the DiGidot Controller Software is in a specific status, such as playing a scene or when in idle state.

If this..
Define the condition of an internal task which upon a trigger needs to be fired.

- ‣ Select an internal task such as 'Scene' or 'Art-Net'
- ‣ Select a status of an internal task which triggers the event
- ‣ The idle status is defined as; ready to execute tasks, not playing a scene and no incoming Art-Net, sACN or DMX Signal is detected.

Sunrise / sunset

Sunrise and sunset triggers can be used to trigger events when the sun rises or sets. The DiGidot Controller Software will calculate the precise local sunrise or sunset time, based on GPS coordinates (longitude and latitude) or according to the built in city list. It is also possible to program an offset to these events in order to start the trigger before or after the sun rises or sets.

Time accuracy
Please consider following regarding Time keeping accuracy:
The internal clock (RTC) has a deviation of 0.0038%, which means effectively that the clock can get behind up to ±20 minutes per year.
In order to resynchronize the RTC, the DiGidot Controller Software (network) must be connected to a computer or to the DiGidot Controller Software app and the interface must be loaded. The DiGidot Controller Software will then automatically obtain the local real time and will reset its RTC.

If this..
Enter location
There are two ways to enter the location of the project:

Option 1: is the online location finder. Enter the location, city and country for example and press enter. The Interface will provide the latitude and longitude and current sunrise and sunset time for this location. This option requires an internet connection.

Option 2: is the offline mode where the latitude and longitude can be entered manually or where you can choose from a list of popular cities. This is recommended when no internet access is available or when the google result is not accurate.

Choose one of the following options for this trigger:

Options
- ‣ Sunrise

‣ Sunset

It is possible to add or subtract time in minutes from the sunrise or sunset time by entering a positive or negative number of minutes.

> **NOTE**
> You can make combinations of multiple triggers to control specific actions.
> In order to so, select 'ADD INPUT' in the 'If this..' menu. Note that only the combination of all selected input triggers will trigger the action.
> This feature is still in development and not yet fully supported for all combinations, please make sure you're running the latest firmware and contact us for further information.

Counter

Home > Triggers > select '+' to add a trigger > Counter'

Counter triggers can be used to trigger events when the counter is higher than the entered delay in seconds. The counter will start counting when the DiGidot starts up and all triggers are loaded. This takes about 5 seconds from powering the DiGidot Controller Software. The counter can also be reset by trigger action.

If..
The counter time is higher than the entered delay time.

Trigger actions

If the trigger condition(s) on the "if" side are positive, one or more actions can be executed.
When you've finished your trigger setup, click 'SAVE' to store your trigger settings.
Then..
This menu shows the available events that can be configured.

‣ Select the devices that needs to perform an action.

‣ Select the action type and action parameters in the "Event settings" window.

Play scene

‣ Scene: Select the desired scene from the drop-down menu.

‣ Alpha: Set the brightness/alpha for this action.

‣ Fade time: Set the fade for this action.

‣ Layer: Set the layer where the scene needs to be played.

Play playlist

A playlist is a list of scenes with fade times and needs to be created in the main menu item called "Playlists".

‣ Playlist: Select the desired playlist from the drop-down menu.

Action list

The action list allows multiple actions and sub actions to be triggered in consecutive order, by the same trigger input, every time this trigger state is positive.
Every step in this list is indicated by a #number and can be ordered with the drag and drop feature.
Every action may contain one or multiple sub actions that are triggered at the same time. An action list always loops, this means it will start at the first step again if you trigger it at the last step of the action list.

Select an action from the drop-down menu. An action will add one or more extra options depending on the action type. E.G., a Scene will add a drop-down menu to select a scene and an option to set a fade time.

ADD SUBACTION:

All of the action types described in this chapter are available as a subaction as well. This allows multiple actions to be executed when triggered by the same single. You can also have an action list with multiple steps. By clicking the "ADD ACTION" an extra step will be created. Each time the input triggers are 'true' the action list will go the next step in the action list.

Pause

This will pause any scene or playlist that is playing.

> Effect: You can add an affect that determines the way a scene is stopped.
>
> No effect (default): This will instantly pause the scene.
>
> Speed transition: This will gradually decrease the speed to 0% within the entered time.
>
> Brightness (fade out) transition: This will gradually decrease the brightness to 0% within the entered time.
>
> Speed and brightness (fade out) transition: This will gradually decrease the speed and fade out the brightness to 0% within the entered time.

Resume

Resumes playing any paused scene or playlist.

Stop

Stops playing any scene or playlist.

> **Target:** Select what needs to be stopped
>
> > Layer: Select layer number

Next

Skips to the next scene in the Scenes list or playlist.

Previous

Goes back to the previously played scene.

Speed

Changes the scene speed by adjusting the speed slider. 100 is the default scene speed and represents 100% of the original speed. Values higher than 100 represent a speed increase, values between 1 and 100 represent a decrease in speed, 0 represents a static value with no speed and values smaller than 0 will reverse the movement and will increase in speed when the negative value increase.

> Transition Time: This will gradually decrease or increase the speed to the selected value within the entered time.

Master brightness

Changes the master brightness.

> Brightness type: Select how you want to adjust the brightness.
>
> Static value: Adjust the brightness with the brightness fader.
>
> Steps: Is used to increase or decrease the master fader brightness level with a percentage of the current master brightness level. E.g. -8 wil result in a decrease of 8%.
>
> Fade time: Set the fade time for this brightness adjustment.

Change color (hue filter)

Shift the color(s) for the playing scene.

Offset: This option shifts all colors throughout the RGB color spectrum.

Add: This option adds a color to the default color(s) to create a new mix color.

Scene original color: select the color the scene you like to change color of.

Target color: select the color that the scene needs to be.

Saturation filter

A filter to add white for a playing scene

Saturation of scene: Value 100 represents fully saturated (original scene color) and value. 0 represents no color but white.

Record

This trigger can be used to (remote) control various record functions.

Prepare buffers: Prepares the buffers for the recording process. This action is required prior to the Start record action.

Start record: Starts recording incoming Art-Net, sACN or DMX Data. Please note that this action must be a new action and cannot be a sub action following the Prepare buffers action. Make sure that there is at least 1 sec time between the Prepare buffers and Start record action.

Stop record: Stops recording.

Play raw scene: Plays the unprocessed record.

Stop raw scene: Stops playing the record.

Save record: Saves the unprocessed record.

Link to another trigger

You can link to other actions that have already been created. This also allows you to trigger an action list for example.

Select action(s): Select an action from the pop-up menu.

Enable/disable other trigger input(s)

This trigger will enable or disable one or more selected trigger inputs.

Select trigger(s): Select one or more triggers from the pop-up menu.

New state: This is the on/off switch for this trigger input. Please note that in case this trigger input should become (in)active again, another counter.

Reset counters

Select one or multiple counters that need to be reset.

Send UDP message

This trigger can be used to send a UDP message to external devices.

IP address: Enter the IP address of the recipient.

Port: Enter the port number for the UDP message.

Message: Enter the UDP message for your recipient.

Send OSC message

This trigger can be used to send an OSC message to external devices.

IP address: Enter the IP address of the recipient.
Port: Enter the port number for the OSC message.
Address: Enter the address path where the message needs to be sent to within the recipient application.
Value: Enter the value for OSC message.

Restart

This trigger will perform a restart of the DiGidot Controller Software controller(s).

Custom

This trigger opens a note pad where custom trigger code can be entered. This option is usually reserved for developers or custom-made code.

Action examples: Select an action from the pop-up window.
Open editor: This will open the custom command in a in browser editor.

Creating linked triggers

Home > Triggers > Linked triggers

Linked triggers are used to link input triggers to actions with variable values such as linking an analog input to the master brightness.

On this page it's possible to link the trigger input on the left to an action on the right. Simply select an input and an action to connect a trigger permanently. The established link is visualized by a connected line between the two items.

Parameters that can be controlled by linked triggers are:

- ‣ Speed
- ‣ Hue (color)
- ‣ Saturation
- ‣ Brightness
- ‣ Playlist
- ‣ OSC - *OSC commands must be send to port 8000*
- ‣ UDP - *UDP commands must be send to port 6467*

Further information about OSC and UDP triggers can be found here:
Home > Triggers > click on the 3 dots in the top right blue bar > select 'HTTP, UDP and OSC'

For some of these parameters it's possible to define a specific control range by adjusting the sliders.
For the analog, Art-Net, sACN and DMX inputs it's required to set a minimum and maximum input value.
Some triggers and some actions require further configuration, such as OSC and UDP where custom messages can be set.

> **NOTE**: The number of triggers that you can generate is limited due to available memory. Available memory is affected by the license, number of configured universes, number of actions, scenes that are playing, etc. In any case, the maximum number of triggers is around 25. If too much triggers are created, this can result in memory overload and will cause a device crash. In such cases, it's best to remove the microSD card, make a copy of the microSD card, delete the contents of the triggers folder and insert the microSD card again. New triggers can be created but you should create less triggers than before.

Trigger watcher

Home > Triggers > Click the three dots in the top right blue bar > Trigger Watcher

The trigger watcher can be used to monitor trigger activity.
There are three tabs, 'ALL TRIGGERS', 'UDP MESSAGES' and 'OSC MESSAGES'. Select the the trigger tab that you want to monitor and click 'START WATCHING' all the trigger activities will be listed.
If you want to clear the screen Click 'CLEAR LOG' any time.

Groups

Home > Groups

This function allows you to create specific groups of DiGidot Controller Software controllers. This makes the configuration, identification, testing, restarting and organizing specific parts of your project or installation a lot easier.

Add a group

Home > Groups > click the '+' icon

Input fields

Name:	Enter a name for this group.
Select devices:	Check all devices that you want to add to this group.

Group settings

Home > Groups > submenu: Group settings

Auto select group at start-up:
In the group settings you can set up a device or group that is selected at the start-up of the app. This can be useful if you create an "user" account that should only control those devices.

Hide single devices:
When you enable this option, single devices will be hidden in the "My Devices" overview (select-box in the top bar). Groups will not be affected by this option.

Monitor

Home > Monitor

In the Monitor function you will find relevant information such as Response time, Status, MAC-Addresses and IP addresses and so forth. This can be helpful when setting up your network, for troubleshooting or live monitoring the performance.

Response time
Response time shows the network message response time.
When the Response time light is green, the network connection is working.
When the Response time light is red the DiGidot Controller Software is not responding. Click on the "timeout" text to get more information about the timeout session.

Status
Definitions of device statuses:

- ‣ Playing [scene name]: Device is playing a scene or playlist.
- ‣ Scene FPS
- ‣ Incoming FPS

Analog

This shows the incoming values of the analog ports.

Name

This is the device name.

MAC address

MAC addresses of device.

IP address

IP addresses of device.

Universe(s)

This shows the configured universe(s) that the DiGidot Controller Software listens too. There are two statuses:

‣ Red numbers indicate that no incoming signal data present.

‣ Green numbers indicate that incoming signal is present.

Click on the device universes to open the Art-Net or sACN watcher window, to monitor the incoming channel values.

Port

This shows which ports have been configured as an output.

If you click on a port, it will highlight the DiGidot Controller Software output until you click again.

Actions

Restart: will restart all devices that are currently displayed on the Monitor page.

Highlight: will highlight all configured outputs of all displayed devices on the Monitor page.

To select more or less devices, click on the "ALL DEVICES" button (select-box in the top bar) and select the preferred device or group.

Account

Home > Settings > Account

This page allows to create accounts by enabling the accounts option. A popup will appear to create an 'admin' account. These login credentials will be asked if you try to log in to the DiGidot Controller Software.

After the 'admin' account is created, it's possible to create accounts with different access levels. This can be used to restrict access to some parts of the interface for certain users. An 'user' for example is only able to playback scenes and playlists.

When a user (with 'user' rights) logs in, the user will automatically be redirected to the scene page.

Settings overview

This page shows all the settings and device configuration.

Input & output configuration

On this page you can configure the inputs and outputs.

Choose the output type (or DMX input) for these ports. Then click the blue + icon of each port to add universes. To edit the output options, click the universe item.

The DiGidot Controller Software is able to output one unique SPI protocol type simultaneously. If you select an SPI protocol for one port, this protocol will be used for all other output ports.
You can however make a combination of 'DMX input' or 'DMX output'.

Combining ports example:
Port D1 is set to DMX out and will automatically be combined with port D2, because 2 separate data lines for a (balanced) DMX signal are required.

Art-Net out
This feature can be used to send or redirect incoming Art-Net, DMX and recorded scenes (also scene generator created scenes), to Art-Net.

Click the '+' button to add Art-Net output universes.
Select an input source and enter the number of channels that need to be send.

Select the 'Advanced settings' for more universe specific settings such as the starting address, IP address of the Art-Net source, 16-bit input and other output options.

Art-Net out universes can also be used to record them from an Art-Net stream in order to play back later and send them over Art-Net again. The DiGidot Controller Software can therefore also be used as an Art-Net playback recorder.

Art-Net out channels are considered as output channels and will affect licensed channels.

Quick edit
The quick edit mode allows you to edit the configuration items with saving after all adjustments has been made. This speed up the process when you have to edit the universe number or channels quantity for multiple devices.

> **NOTE**
> The DiGidot Controller Software starts to count universes at 0 (zero)! Some software's or consoles, such as MADRIX may start counting at universe 1.

> **TIP**
> Additional tools available!
> In the right top menu you will often find additional tools under the three dots in the top right blue bar.

Autocomplete configuration
Use this tool to copy the configuration of the first port of the first device to the selected ports/devices. The interface will show various autocomplete options, depending on your system setup.

Global configuration
This page offers advanced configuration item options that apply to all selected devices.
Such as;

- Gamma Correction
- Color profile
- Fallback options
- IP address filter

Input watcher
The input watcher is a useful tool that monitors incoming control signals. You can switch between:

- Art-Net/sACN: you can enter a specific universe that you want to monitor. You can only watch the selected input protocol at the 'Input and output configuration' page.
- DMX: switch between the inputs if you have configured one or more ports as DMX In.

Limit outputs
On this page you can set the master brightness, the brightness limiter and the adaptive power limiter.

Brightness limiter
This option limits the individual channels to a specific percentage. This means that every channel or LED will never exceed this percentage.

E.g.: Limiting brightness to 50%, means that all individual channels can never exceed 50% but the control range per channel will remain the same. Effectively the percentage is applied to the input value for each channel.

Adaptive power limiter
This option limits the total average output of all channels combined to a specific percentage in order to decrease total power consumption. Individual channels may still output up to 100%.

E.g.: Limiting power to 50% means that half of the channels can output 100% and the other half at 0% or all channels at 50%, etc.
In case you would try to output all channels to 75%, the output of all channels would be automatically limited to a total 50%, but will maintain ratios relative to each other.

Delete configuration
Deletes all IO configuration settings of selected devices.

In/out configuration item page

Home > Settings > In/out configuration > Universe item

Click on Port D1/D2 to select or change the output protocol. Click on the '+' symbol to add a universe to each port. Click on a universe item to change following settings.

Channels: Define the number of output channels.
Universe: Assign a universe number as input.
Further configuration options will be shown when you expand the '**Show advanced settings**' option.

Advanced IO config

Start-channel
This option allows you to enter an offset value of the starting channel that this universe listens to. By entering a start channel (0-511), all channel data before this channel offset will be skipped.

Example

Goal: You want to use channel 100 up to channel 200 as output channel 0-100.
Configuration settings will be as follows:

- ▸ Start channel is set to 100.
- ▸ Channels is set to 200.

Explained: First, the start channel will shift 100 channels of the input. This will skip the first 100 channels of the universe. Then set the channels to 200, because 200 channels are required, starting after the first 100 skipped channels.

Create segments

This option combines multiple channels or LEDs in order to become one pixel/segment. It's recommended to use this option when the amount of control channels needs to be reduced, if you want to create larger pixel segments are required or if multiple channels of an IC control the same channel (e.g. Sometimes a 3 or 4 channel IC is used to control only white LED's within one package or module).

Segment type

Select a segment type from the dropdown menu.

- ▸ No segments - Disables segments (Default)
- ▸ Create segments - Allows to create your own segmentation
- ▸ RGB(W) LED segments - Link multiple LEDs together (e.g.: channel 1&4&7, 2&5&8, ...)
- ▸ Monochrome segments - Groups channels together (e.g.: channel 1-3, 4-6, ...)

Examples

Repeating 3 RGB pixels: Output channels 1,2,3,4,5,6,7,8 and 9 will correspond to input channels 1,2 and 3.

Number of linked channels: 1

Repeat linkedchannels: 3

Input channels

1	2	3	4	5	6	7	8	9

Output channels

1	2	3	4	5	6	7	8	9

Convert a pixel product into simple '1,2,3,' chaser for less control channels: Copy the input channels 1,2,3, in the following order the outputs.

Number of linked channels: 3

Repeat linkedchannels: 1

Input channels

1	2	3	4	5	6	7	8	9

Output channels

1	2	3	4	5	6	7	8	9

Increase pixel size/ decrease channels: Combine/group multiple output channels into one, in order to save input channels.

> NOTE: Combining input channels will not reduce the amount of output channels.
> The DiGidot Controller Software is always limited to the total amount of output channels corresponding to the license. The number of input universes is not limited.

Gamma correction

Gamma correction adjust the overall brightness of the output. This option is used if you want to display videos And images or if you have a 16 bit output to have finer control if the LED is low in brightness.

Color profile

Rearrange the LED color order, for example from RGB to BGR. You can select a few standard conversion profiles or create your own Custom profile. This might be required for some LED products. The DiGidot Controller Software uses the default color order from the technical documentation of a selected IC/SPI protocol.

Fallback color

This function allows to select a color that will be send to all output channels as soon as no incoming signal is detected for a specified amount of time.

Color

Enter an RGB(W) value between 0 and 255 per LED channel or use the color picker to select a color easily. If you use the color picker, you can also adjust the saturation and brightness by adjusting the sliders underneath. After selecting the fallback color, hit the ✓ button in the center of the color picker to confirm your selection.

Timeout

Enter a delay/timeout in seconds when the fallback color becomes active after signal loss.

Advanced input

Further universe specific settings can be changed;

- **Only accept signal from IP address**: enter a dedicated IP address that this universe listens too.
- **16-bit input**: When sending 16-bit data to the DiGidot Controller Software, two input channels are used for one color channel. If your IC does not support 16 bit and you want to convert 16-bit to 8-bit, please enable this option. If your input is 16 bit and your IC is too, it will be done automatically.
- **Second input (HTP merge)**: This will merge the selected universes together and transmit the merged signals to the designated output. Enter the desired universe, start channel and the number of channels you want to merge.

Advanced output

- Bypass master dimmer: Enable **if you want this output not to be dimmed by a master dimmer or brightness trigger.**
- **Max time until resend:** When no signal is received within a given time the current output is resent to the IC's (LEDs). This is used to prevent data issues and IC timeout functions from happening because some IC's will switch to a default color or sequence when no SPI is received for a certain duration. This may also result in a decrease of frame rate (FPS).
  Reset this value to its default by pressing delete and generate a new universe again by selecting the blue + button of the specific D port.

When you are finished adjusting the advanced options, click 'save' to store the settings.

> **TIP**: In order to quickly test your outputs, you can toggle all ports on to full white when clicking the bulb 💡 icon.

Network settings

Home > Settings > Network

This page shows a tab for both Ethernet (wired) and Wi-Fi (wireless) network related settings of the DiGidot Controller Software.

MAC address
This is the unique the device MAC address. This address cannot be changed and is being used for identification and network communication.

Ethernet configuration

IP address
The ethernet IP address of the DiGidot Controller Software.

Subnet-mask
Network range of your device.

Smart ethernet DHCP
Enable or disable the smart DHCP server. When enabled the DiGidot Controller Software will assign IP addresses to devices that connect trough ethernet. If a DHCP is already present on the network, it will be disabled internally as long as the DHCP server responds within a certain time window.

In case you've changed any ethernet settings, click the 'SAVE' button to store them.

Wi-Fi configuration

The DiGidot Controller Software has a build-in Wi-Fi module which is able to make different types of wireless connections.

Wi-Fi mode
There are three options for Wi-Fi mode.
Off: this disables the internal Wi-Fi module.
Connect to Wi-Fi: The DiGidot Controller Software will connect to another Wi-Fi network. If the Wi-Fi network is secured, you need to enter the network password.
Access Point: The Access Point mode will create a Wi-Fi access point that you can access with your mobile device or computer.

Access Point
The Access Point mode will create a Wi-Fi access point that you can access with your mobile device or computer.

IP address
The Wi-Fi IP address of the DiGidot Controller Software.

Subnet-mask
Network broadcast range of your device.

Gateway
The gateway of the network.

Wi-Fi name (SSID)
The Wi-Fi network name that will be found by your device when scanning for wireless networks.

Wi-Fi security
The Wi-Fi security protocol can be set to open or secured (WPA2).

Password
The Wi-Fi password that's required to connect to the Wi-Fi network. (Minimum of 8 characters)

Hide SSID
Hide or show the Wi-Fi network name when devices search for Wi-Fi connections. When hidden you can only connect to the access point by manually entering the SSID.

Channel
Wi-Fi channel can be set between 1 and 14 or you can choose for 'auto'.

Enable DHCP
Enable or disable the DHCP server. When enabled the DiGidot Controller Software will assign IP addresses to devices that connect to the access point. The built in DHCP server is smart and detects and adapts if there is already a DHCP server present in the network.

DHCP start IP address
This is the starting IP address of the IP address range that the DiGidot Controller Software can assign to other devices in the network.

DHCP end IP address
This is the last IP address of the IP address range that the DiGidot Controller Software can assign to other devices in the network.

Enable BSSID
Enable the use of BSSID

Access Point settings example
IP address: 172.16.0.1
Subnet-mask: 255.0.0.0
Security Wi-Fi: Secured
Wi-Fi password: 123456789
Wi-Fi name: DiGidot Controller Software Wi-Fi
Wi-Fi channel: Auto
Hide SSID: Disabled
Enable DHCP: Enabled
DHCP start IP address: 172.16.0.2
DHCP end IP address: 172.16.0.30
Enable BSSID: Disabled

Connect to Wi-Fi
The DiGidot Controller Software will connect to another Wi-Fi network. If the Wi-Fi network is secured, you need to enter the network password.

Select a network
This shows a list of available Wi-Fi networks found by the DiGidot Controller Software.
After selecting a network, you will be asked to enter the network password in case it is protected.

Static IP
Enable the option to fill in a static IP address. When disabled the DiGidot Controller Software will use DHCP to get an IP address from the network.

IP address

The (static) Wi-Fi IP address of the DiGidot Controller Software. Make sure it's in the same IP address range as the network you are connecting with.

Subnet-mask

Network broadcast range of your device.

Connect to Wi-Fi settings example

Select a network:	HomeNetwork
Password:	HomeNetworkPassword
Static IP:	Disabled

> **NOTE:** Avoid Interference with Wi-Fi.
> The following items can cause interference with the Wi-Fi signal:
> Microwave equipment such as ovens
> Direct Satellite Service (DSS) radio frequency leakage
> Electrical installations such as power-lines, electrical railroad tracks and power-stations
> Wireless devices that operate in the 2.4 GHz range.
> Do not install this device in metal or aluminium cabinets when you want to use direct Wi-Fi communication. If you have problems with your DiGidot Controller Software communication, change the channel that your device is using for Wi-Fi or switch to Auto-Channel.

In the right top menu, you find additional tools under the three dots in the top right blue bar.

Restart all

This will restart all devices in the network.

Global settings (multiple devices only)

This page offers global settings that will be apply to all selected devices.
Such as:

- Subnet mask
- Gateway
- Smart DHCP server

Device settings

Home > Settings > Device

This page shows devices settings of the DiGidot Controller Software.

Device name

The name of the device by which it can be identified.

Status Lights

The status LEDs can be dimmed in four levels:

- 100%
- 25%
- 10%
- 0% (off)

Ethernet Lights

Disabled/enable the ethernet LEDs.

Time settings (extended only)

It's possible to synchronize the time of the computer or smart device with the DiGidot Controller Software when loading the interface. If disabled you can manually enter a time and date. The time can be used for triggering scenes. Once the time and date are set, the on-board battery will keep the internal clock running.

Actions

Restart - Restarts the DiGidot Controller Software

Format SD - Formats the microSD card inside the DiGidot Controller Software (extended only)

Diagnostic

Home > Settings > Diagnostic

This page will show relevant information to diagnose how a DiGidot Controller Software is performing.

Actions

Global settings – This will open a settings page where it is possible to change the refresh interval

1.   File Browser – Will open the file browser page of the DiGidot Controller Software
2.   Trigger Watcher – Will open the trigger watcher page of the DiGidot Controller Software

Filter

This will open a popup where it is possible to (de-)select views. This will also reduce the network load because the fields are not refreshed when deselected.

Global

This tab will show global information about the DiGidot Controller Software.

IO

This tab will show information about the configured Input and output configuration of the DiGidot Controller Software. The items are focused on the refresh timings of the different configured items. The Input will be updated when there is new data available from the Art-Net, sACN or scene stream. The map will be refreshed when all data is available and matches the FPS. The output should always be refreshed with in the configured timeout.

Network

This tab will show additional information about the connected ethernet ports and Wi-Fi.

Trigger

This tab will show the loaded triggers and if the DiGidot Controller Software will respond to external trigger calls.

Playback

The playback tab will show information about scenes and/or playlists playing. This tab will also show information about the FPS, Total processed frames and skipped frames of the different input protocols.

Performance

This will show the different cycle durations. This can be used to find what the performance is of the DiGidot Controller Software.

Memory

The memory tab will show an overview of the used RAM and which managers are using it. It will also show the status of the SD card and if mounted the free space of the FAT partition.

Error

This tab will show the generated errors of the API and error items logged during the current session. These values will be reset after a reboot.

Remote Device Manager

Home > Settings > Remote Device Manager

To use the DiGidot Controller Software RDM feature, a compatible protocol must be configured first on the in/output configuration page, such as DMX out, DMX TTL or a PxLNet supported protocol.
Furthermore RDM will only work when all connected devices are RDM ready and or RDM enabled.

Discover RDM Devices

To discover (new) RDM devices, click the refresh or discover button on top or the device list.

Discover: will reload the entire device list.
Ongoing discover: will only look for new devices and will keep previously discovered devices listed.

RDM settings
The RDM settings menu shows additional features such as 'Update devices' which is a firmware update manager for compatible devices.

Device info
This window shows all available device information:
> **General information:** shows the information entered by the manufacturer.
> **Configuration:** shows tall available configuration settings. The device name is the default device name but it can be changed on this page.
> **Status:** shows the information that is sent back from the device, if this feature is supported by it.
> **Personality:** is a tab that will only be shown when the device supports this feature. On the personality page different device operating modes will be displayed.

Highlight functions

Port Highlight - will highlight all connected RDM devices on that particular port.
RDM Device - highlight will highlight only that particular device in order to locate it.

License

Home > Settings > License

On this page you can view the license(s) of your DiGidot Controller Software device(s).

License upgrade

Click the 'Buy license' and follow the instructions.
It's also possible to buy a license upgrade online, visit digidot.eu, create an account, register your device(s) and upgrade from the 'my devices' tab at my account page.
Another option quick option to upgrade a DiGidot Controller Software is to use your smart device camera, scan the QR code on the DiGidot Controller Software device label and follow the link to our website.

Having trouble upgrading your DiGidot Controller Software license?

Detailed updating instructions can be found on our website.
You will need your device QR code or the MAC-Address, serial number and your customer/company details for the upgrade procedure.
Having trouble upgrading your DiGidot Controller Software? Please contact us at support@digidot.eu.

NOTE: If an immediate upgrade is required, please choose Credit Card, PayPal, iDeal, SOFORT Banking or Bank contact during the upgrade check out process. Other payment options will take a few days to process after the payment was completed and will therefore delay the upgrade.

Offline upgrade

The DiGidot Controller Software can be upgraded at any time, even when it doesn't have internet connection.
In order to upgrade your device(s) follow these steps:
0. Write down the MAC addresses and serial number, listed on the product label.
1. Visit our website digidot.eu on a computer or smart device with internet connection.
2. Login to your account or create an account on our website.
3. Go to 'My devices' and select the devices based on MAC addresses that you want to upgrade. If you have not yet added your devices to your DiGidot account, you can enter the MAC address and Serial Number or Product Key and click the 'Add device' button or the 'Scan QR Code' button if your device has an onboard camera.
Another option is to use your smart device on camera mode, photograph the QR code on the DiGidot Controller Software device label and follow the link to our website.
4. Then select an upgrade option for your device. Then complete the checkout. Continue on the next page.
5. After the payment is done, you can view your device at the 'my devices' page again and download the license key. Or copy the license key from the attachment from the 'license key' e-mail.
6. Open the file and copy the license key text.
7. Go to the DiGidot Controller Software interface and go to settings > license. Then toggle the option for the offline upgrade. A text field will appear. Paste the license key in the field and then click 'Apply license key'.

Interface settings

Home > Settings > Interface

This page offers a few user interface related options. These settings are stored in your browser or DiGidot Controller Software app.

Theme
You can choose 'Light' (default) or 'Dark' color mode when this is preferable.

Developer mode
This mode adds the 'Console' menu item to the Home page. This option opens a command editor which should only be used by advanced users or if instructed by DiGidot support.

Update

Home > Settings > Update

When there is an internet connection, the user interface will automatically show if a firmware update is available. Please note that it is possible to update multiple devices at a time. Before updating, please make sure that all connected devices have the same firmware version, that all devices are all switched on and connected by wired Ethernet. Follow the update instructions from the interface.

Offline update

When no internet connection is available, you can download the latest update from our website and then manually upload it to the DiGidot Controller Software.

Open your web browser and go to the following address: *http://<ip-address of the DiGidot Controller Software>/
fwupdate.htm*. Click the "Browse" button and locate the update file. Then Click "Install" to start the update process (this may take a few minutes). You can also check the checkbox 'Broadcast' if you want to send the update to every device. Make sure that you're not sending Art-Net or sACN if you choose to broadcast!
After the update is completed the DiGidot Controller Software status lights will return to idle state, fading blue to light blue.

By default, the IP address of the DiGidot Controller Software is 10.254.254.254. When you have configured a different IP address you can use that IP address as well.

Backup and restore

Home > Settings > Backup and restore

The DiGidot Controller Software has a backup feature that allows to back-up the settings from multiple devices. The backup can save accounts settings, network settings, device settings, triggers, playlist and scenes.
Creating a backup with scenes can take long depending on the number of size and duration of the scenes. Another faster way to back up your scenes, triggers and playlists is to removing the microSD card from the DiGidot Controller Software and copying it manually to a computer.

There are three ways to create a backup:

Save backup: this will save the backup to the application memory in the browser/app and the backup will show as an option in the restore options inside the interface.

Export backup (browser version only): This will create a backup and it will be downloaded as a zip file. This zip file can be used at 'Upload backup file'.

Backup on SD card: This will create a backup on the SD card. This backup will be restored every time the DiGidot Controller Software boots. If you change any settings, this will be lost after a reboot. To keep your changed settings, you need to create a new backup on the SD card. To delete the backup and prevent it from loading at start up.
Go to 'settings' -> 'File browser' -> 'select device' -> 'SYSTEM folder' -> 'SETTINGS folder'. Then delete the files in this folder.

> **NOTE**
> This will only save the network, device and in-/output configuration on the SD card.

Support overview

Home > support

This page shows all support items.

Manual

Home > support > Manual

This page shows the build-in manual of the DiGidot Controller Software. The manual is always compatible with the connected DiGidot Controller Software firmware/interface. No internet connection is required to open this page.

F.A.Q.

Home > support > F.A.Q.

This page will load the F.A.Q. page from the DiGidot website to help you answer frequently ask questions. This page requires an internet connection.

Support Ticket

Home > support > Support ticket

On the support ticket page, you can fill in a form for any firmware/interface bug, for feature quest or for other improvements for existing features. When reporting a bug, we recommend downloading a bug report (browser only) and select it at the 'Bug report file' input. This makes it easier to diagnose your problem. Any screenshot or video of the situation will also help a lot. This page requires an internet connection.

TIPS & TROUBLESHOOTING

Standard troubleshooting checklist

1. Double check all cables and connections.
2. Is the DiGidot Controller Software powered correctly? The minimum Voltage is 5 Vdc.
3. Are the LEDs powered correctly?
4. Are all power supplies connected correctly to your mains power supply?
5. Is your network setup done correctly?
    5.1. Prevent IP address conflicts (same IP Address across multiple devices)
    5.2. Make sure that the subnet mask range is set correctly and that all IP address are set within the appropriate range.
6. Are the inputs and outputs configured correctly?
    6.1. Make sure that the correct IC/SPI protocol is configured.
    6.2. Make sure that the patch of Art-net/sACN software is correct. Check if no fixtures are patched twice.
    6.3. Make sure that input and output matches the system setup.
       Please note: Some software start universe counting from 1 instead of universe 0.
7. Is your ground (DC-) from the DiGidot Controller Software output terminal connected to all the grounds of the LED products power supplies?
8. Make sure that not more than one browser session is opened and connected to the DiGidot Controller Software.
9. Clear your browser cache or try incognito mode.
10. Refresh the interface by pulling down the top of the interface page. The pull to refresh action can be executed on the Scenes, Playlist, Account, Triggers, Input- & output configuration, Network, License, Update, File browser and Device page.
11. Perform a factory reset. Disconnect the power from the DiGidot Controller Software, press and hold the onboard button, apply power and hold the button for at least 10 seconds. Once the status LED's turn to blinking yellow, the factory reset is initiated, once the status LEDs turn to solid yellow you can release the onboard button. Resetting and rebooting will take ± 15 seconds. Please take into account that all settings such as the in/out configuration, network, device and account settings, will be lost. Stored files such as scenes, playlists, triggers and backup files on the microSD card will remain.

Status LEDs

There are several states of the device. Different states are shown using both the top and the side status LEDs of the DiGidot Controller Software.

Definition of status light indicators:

	Light colors	Category	Explanation
🔵🔵	Fading blue-cyan light	Informative	The DiGidot Controller Software is Idle with a license
🔵🟢	Fading blue-green	Informative	The DiGidot Controller Software is receiving incoming signal (Art-Net, sACN or DMX)
🔵🟣	Fading blue-magenta	Informative	The DiGidot Controller Software is playing a scene
🔵⚪	Fading blue-white	Informative	The DiGidot Controller Software is recording or processing a scene
🟢⚫	Fading green-off	Informative	Settings successfully stored or device successfully discovered
⚪⚫	Fading white-off	Informative	The DiGidot Controller Software is updating the Wi-Fi firmware
🟡⚫	Fading yellow-off	Informative	Preparing factory reset, keep button pressed until fading stops
⚪🔵	Blinking white to cyan	Informative	Temporary Wi-Fi Access-point is activated
🔴⚫	Blinking red for 3 seconds	Error	A General (temporary) unknown error
🔴🔴	Alternating red	Error	The microSD card must be formatted
🔵🔴	Alternating blue-red	Error	The DiGidot Controller Software system is frozen, a reset will be performed
🔴🟡	Alternating red-yellow	Error	The internal battery is empty or has a problem
🔴⚪	Alternating red-white	Error	The DiGidot Controller Software has crashed, a reset will be performed
🟣🟣	Alternating purple-purple	Error	Self-test during startup failed

> NOTE: In case of a Battery Error: Both top- and side status lights are alternating from yellow to red for 3 seconds, contact DiGidot for further instructions.

Network status lights

Ethernet left LED (orange or green) - Link established
Ethernet right LED (blinking green) - Data transfer active

Some DiGidot Controller Software controller batches may have one color of ethernet lights but the left and right side represent the same status.

> NOTE: In case that the status lights are not lighting up when the device is powered and connected to a network, the status lights may be switched off in the user interface.
> Open the user interface and go to *Home > Settings > Device* to check and switch them back on again.

No output signal from DiGidot Controller Software

Make sure that:

- The DiGidot Controller Software is powered.
- Master brightness, port limiters are not set to zero.
- The HSV filter is not set to black.
- The inputs and outputs are configured.
- The scene is compatible with the outputs.
- Check the distance between the controller and the first LED/IC. Try to reduce this length to an absolute minimum and check if this solves the problem. If the LED/IC is now working correctly, the data cable runs were too long for your setup.
- The lighting fixtures/LEDs that need to be controlled are powered.

DiGidot Controller Software not receiving signal

Make sure that:

- The DiGidot Controller Software is powered and is properly connected to the Art-Net or sACN console/computer.
- Incoming signal on the status lights located on the top and side of the DiGidot Controller Software. When the DiGidot Controller Software status LEDs are fading green and blue it is receiving signal. (see the product explanation and status lights explanation).
- The network, input and output configuration of the DiGidot Controller Software device is setup properly.
- The computer/device that is sending signal is set up to match the network settings.
- The computer/device that is sending signal is set up to match the universe inputs.
- The incoming signal status can also be checked in the interface on the Monitor page.

Art-Net software doesn't recognize the DiGidot Controller Software

Make sure that:

- The DiGidot Controller Software powered and properly connected to the Art-Net console/computer.
- In order for the DiGidot Controller Software to be discoverable for any software, you need make sure that the network and one or more output(s) have been configured properly.
- The DiGidot Controller Software controller is reported to work with most well-known Art-Net consoles and software. Some Art-Net consoles only work in the 2.0.0.255 range. Please configure your device in the same range if necessary.
- If you try to discover devices from Art-Net software, the subnet mask of the console/computer must be identical to the subnet mask of all the DiGidot Controller Software device(s).

In case your console or software continues to fail to discover the DiGidot Controller Software you can try to reboot your DiGidot Controller Software device(s). If the problem still remains, please contact DiGidot support.

Wireless connection lost after configuring a trigger

After saving a trigger, the DiGidot Controller Software automatically performs a reboot to apply and load the new trigger settings. When working wirelessly with the DiGidot Controller Software app or OSC, the wireless connection might get lost due to rebooting the system.

DiGidot Controller Software controllers are not starting up

In case you are using DiGidot Controller Software controllers together with a PxLNet Transmitters it may happen that the DiGidot Controller Software controllers do not start up.
The DiGidot Controller Software and DiGidot PxLNet Transmitters require a minimum internal operating voltage in order to work properly. Please double check the minimum operating voltages of your products first.
When connecting multiple devices to the same power supply, the inrush current of all devices combined might exceed the output capability of the power supply, which means that not enough power can be supplied during start-up.

Solution:

- Disconnect power
- Reduce the number of devices that are connected to the same power supply to one.
- Re-apply power the system and check if the first device boots properly.
- Disconnect power again and restore connection to the next device.
- Repeat this sequence up to the number that controllers start to fail during start-up.
- Use another power supply to boot the next devices or use a delayed switch circuit to reduce inrush current.

Make sure that:

- The operating voltage measured at the DiGidot Controller Software or PxLNet Transmitter is at least as specified
- Cables do not introduce significant voltage drops

Solution:

- Reduce the number of devices that are connected

Factory reset

Some problems require a factory reset if nothing else seems to work. In this way the DiGidot Controller Software device returns to its factory default. The factory reset will reset the input/output configuration, device settings, network settings and user accounts.
Recorded scenes, playlists and triggers will not be deleted. After resetting, the device can be accessed through IP address http://10.254.254.254.

> **WARNING**
> Deleted settings cannot be restored, please make a backup, before resetting the device.

Factory reset procedure:
1. Disconnect the power of the DiGidot Controller Software.
2. While pressing the onboard button, re-apply power to the device and hold the button for 5 seconds. Both top- and side status light will blink 5 times yellow, then it remains on, which indicates that you can release the button. The device will reboot and is then ready to use.

In case you're not able to perform this reset due to accessibility and if the DiGidot Controller Software network is or can be connected to a computer with internet access, contact DiGidot support for remote assistance.

Having trouble with your DiGidot Controller Software Setup?

When you have followed all the steps from the manual and still having problems settings up the DiGidot Controller Software, you can visit our online support page digidot.eu/support or send us an e-mail: support@digidot.eu Please make a backup file and send it along with your email, as this will make trouble shooting for our engineers a lot easier.

If you can't connect to the DiGidot Controller Software User Interface, try to open the user interface by opening Google Chrome and typing http://10.254.254.254 in the address bar and press enter.
When the user interface does not load or seems unresponsive you can reload the page. When reloading doesn't resolve the problem, you need to:

- Make sure the DiGidot Controller Software is connected correctly to a power source according to the wiring instructions.
- Make sure that the device is connected to a computer or mobile device.
- Empty your browser cache.
- Check for IP conflicts.
- Check your network connection and network settings. You can verify the connection of the network cable with the ethernet status lights of the RJ45 bus.

Make sure that the computer network is in the same range as the DiGidot Controller Software. For example, when your DiGidot Controller Software is configured to use the IP address "10.0.0.2" with
subnet mask "255.0.0.0" your computer network needs to be in that same "10.x.x.x" range on subnet mask "255.0.0.0".

You can test your network connection with the DiGidot Controller Software.

On Windows
Click the Start *Menu > All Apps > Windows System > Command Prompt.*

You can also find the Windows Command Prompt by right clicking on the *Start button > Command Prompt.*

On Mac OS
Open the *Utilities Folder > Applications* folder and open the Terminal App or you can use Spotlight by clicking CMD + Spacebar and search for Terminal App.

Type ping and the IP address of the DiGidot Controller Software 'ping 10.254.254.254' and then press the Enter key of your keyboard to ping the DiGidot Controller Software device. A timeout will indicate a broken connection.

If you still can't access your DiGidot Controller Software, is the interface page not loading correctly or are the discovered devices not added automatically try to empty your browser cache and re-power and reload the user interface.

Forgot the username or password for the DiGidot Controller Software?

When you have lost your username or password you can perform a factory reset of the DiGidot Controller Software. The reset function will restore the factory settings. Information on the microSD (such as scenes, playlist and triggers) will not be erased. After resetting you can access the device on it's default IP Address.
If you have created a backup, you can restore the device configurations according to the backup & restore instructions.

Can't find your protocol/IC?

The DiGidot Controller Software supports the most SPI protocols of all pixel controllers on the market. However, technology is evolving rapidly and we're not always the first to know when there's new product IC chip with a new protocol on the market.

In case you have or want to use an IC that is not listed in our supported IC's overview, please contact support@digidot.eu. We will do our best to support your IC with a new firmware update soon after.

Need to cover greater cable distances between the outputs and first LED/IC?

If the cables between the outputs and LED/IC are longer than specified In the reference guide, we recommend boosting the signal in order to make sure that the system will work properly. Please use DiGidot range extending equipment such as PxLNet Transmitters and PxLNet Transceivers, which can be found on our website digidot.eu. The DiGidot PxLNet range extending equipment the SPI signal range can be extended up to 250 meters (820 ft). This does not apply to DMX. DMX signal has a standard range of max. 500 meters (1640 ft).

> NOTE: SPI (Serial Peripheral Interface) protocols are originally designed for on board data communication between microcontrollers and other high speed processing components. Because SPI protocols are mostly communicating at extremely high speeds (in the MHz range) and were not designed to leave a PCB (Printed Circuit Board), long cable runs to transfer the data signal, are not accounted for. This means that a lot of malfunctions occur when cable lengths are too long.

Some LED's/colors are not responding correctly

This is a common issue that occurs when the voltage drops below a certain minimum.
Please check the voltage at the end of the LED strip and note that if you're running a 5 Vdc products for example, the data signal runs also on this level. If the voltage drops to 3.5 Vdc for example, this means that the ICs are not able to work properly and the data packets become corrupted. The LEDs also require a certain minimum voltage (forward voltage), which varies per LED and color.

Reasons for voltage drops:

- ‣ Too long cable runs between power supply and LED product.
- ‣ Inappropriate wire gauge between power supply and LED product.
- ‣ Design of LED product that does not allow for high enough currents to pass (too small copper lanes and high resistance). Some LED strips for example cannot be daisy chained because of this. Contact your LED product manufacturer for technical specifications.

Based on the amount of current draw (amount of simultaneous LED's/colors being lit), the voltage may fluctuate and cause an intermittent fault. This means that in some cases everything might seem to work fine and sometimes when content or colors change, it might not.

Solutions:

Check the voltage with a voltage meter at the beginning of the line. If the voltage dropped at the beginning already, compared to the PSU voltage, please shorten the supply cables, increase wire gauges or increase the supply voltage if possible (some power supplies have a voltage adjust potentiometer that can be used to increase the output voltage by a few percent).

> **NOTE**: Do not exceed the supply voltage at the beginning of your data line/first LED product.

Re-supply voltage at some point (where the voltage drop measured is significant) before the faulty LEDs are visible (e.g., in the middle of the line) or at the end of the line.

> **NOTE**: Re-supplying power must be done from the same power supply or if another power supply is being used, all grounds of all power supplies must be connected in order to balance the ground potential.

> **TIP**: Do not use excessive wire gauges to transfer data from the DiGidot Controller Software to the LED products, this will only increase the risk of failures. Typically, we recommend to use wire gauges for the data signal of 0.3-0.5 mm^2 (20-22 AWG).

No microSD card

The DiGidot Controller Software Extended versions that require a DiGidot microSD card. If the DiGidot microSD card is not present or formatted properly, the status lights will blink alternating red.
Solution: (Re-)Formatting the microSD card

‣ From the User Interface go to "browser" and find your device in the left column. From the device row you can use the tool icon to open the microSD card information dialog.

‣ From the microSD card information dialog choose "Format SD Card" this will format the microSD card Note that all stored information will be lost!

‣ Confirm to continue the formatting process.

If a microSD card is inserted in a DiGidot Controller Software Live version, both status light will also blink alternating red.

Solution: Please remove the microSD card and restart the device.

DiGidot Controller Software Extended crashes

When the DiGidot Controller Software Extended crashes or if unexpected microSD card errors occur, it is likely that there is a voltage problem. The DiGidot Controller Software microSD card drive requires a minimum voltage in order to operate properly and in some situations, there can be sudden voltage drops that cause malfunctions.
Double check that the supply voltage is always at a minimum of 5 Vdc.

Unknown error

Disconnect and reconnect the DiGidot Controller Software from its power source to perform a reset. When none of the troubleshooting tips or the reset solves the problem, you might need to open a technical support ticket. Please fill out a support ticket form on our website.

Interface issues

We are constantly working on new features, improvements and bug fixes. In case you experience any interface issues or if you want to test new features that we're working on, we offer a semi-stable beta interface version. In order to use a beta version you can go to: *Home > Settings > Update* and select a beta firmware from the firmware version overview. The beta versions are listed at the end of the list.

In any case if you encounter any interface issues, we kindly ask to report it to us by email to support@digidot.eu.

FAQ

Please visit our website digidot.eu/support/faq for all FAQ's and further support.

VARIOUS

Online resources

For technical specifications, latest documentation, manuals, product information, support and upgrades, please visit digidot.eu.

Remarks

We've put great care in writing this manual. However, in case you encounter any discrepancies or unclarities, please contact us. This manual and feature specific instructions are based on firmware and interface versions mentioned in the chapter 'Manual version'.

Terminology

SPI	Serial Peripheral Interface: this is an interface bus that is used to send data between microcontrollers and IC's.
IC	Integrated Circuit: this is an electronic component which houses a readymade circuit that is able to perform one specific task. An IC can be placed separately on a PCB or integrated in a LED package to control/drive a LED or segment/array of LEDs.
IC/SPI protocol	Type of control protocol that is used by an IC.
Scene	A scene can contact static and dynamic values that control specific channels.
Playlist	A playlist can also be referred as a cue and consists of multiple scenes that are played in a specific order according to pre-programmed parameters.
Action list	A sequence of actions triggered by only a single trigger.
Universe	Typically, a universe is referred as one DMX control network consisting of 512 control channels, also typically associated with one DMX output. DiGidot also refers to a universe as one set of 512 control Channels that belong to specific Art-Net, sACN or DMX universes. But when we mention more than one universe on one output for example, we always refer to them as amount of control channels and not necessarily as DMX universes.
I/O configuration	Input/Output configuration, determines how and which signals the controller are received and how the ports of the controllers are configured for sending a specific signal.
DMX	Digital MultipleX is a universal lighting control protocol which is standardized by USITT and ESTA/Plasa.
RDM	Is the implementation of Remote Device Management based on ANSI E1.20
Art-Net protocol	Is a UDP protocol that allows multiple DMX universes to be sent over an ethernet network and was standardized by Artistic License Holdings Ltd.
sACN protocol	Similar to Art-Net, is a UDP protocol that allows multiple DMX universes to be sent over an ethernet network and is standardized by the ANSI Standard E1.17-2006

Compliances & EU declaration of Conformity

This product is designed and produced by DiGidot Technologies BV, Amsterdam, The Netherlands.
Country Of Origin is: The Netherlands. Official Certificates of Origin can be issued upon request.

Hereby, DiGidot Technologies BV declares that the DiGidot Controller Software device complies with and was tested according to essential requirements of all relevant CE directives.
Certificate of CE conformity: No. 2016/119-1

Conforms to ANSI/ UL 62368-1

Cert. to CAN/CSA C22.2#62368-1

DiGidot Technologies BV is a registered DMX-RDM manufacturer at tsp.esta.org, under ID 00b6h.
DiGidot Technologies BV registered Art-Net manufacturer at artisticlicence.com, under ID 0x0fd0.

Warranty

This product is covered by a carry-in manufacturer's warranty of 5 years which covers any design faults, production faults and component failures.
Warranty voids if the product was installed or used incorrectly or not in accordance with this manual, and/or if the product was damaged due to external factors, opened, modified or electrically overloaded. Warranty conditions of DiGidot

Technologies B.V. apply. Warranty claims have to be issued by email: support@digidot.eu.

Disposal and recycling

This product is marked with the crossed-out wheeled bin symbol to indicate that it must not be disposed of with other household waste. Instead, it shall be collected separately for recycling, reuse or proper disposal as required by Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE). Please contact your local collection center or authorized dealer for proper disposal options.

The contained battery must also be removed and disposed of separately according to local regulations and the European Battery Regulation (EU) 2023/1542..

Feedback

Tell us all about your experience with DiGidot!
The continuous development of the DiGidot control platform is only possible thanks to feedback from our users. If you have any suggestions, please contact us by email:
info@digidot.eu.

Imprint

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Manual version

This manual version may predate the firmware version of your DiGidot Controller Software controller. Some functions may be different and new features may have been added. Please make sure that you're using the manual that matches your firmware version.
This manual corresponds to DiGidot Controller Software firmware version listed below this page.