

MADRIX STELLA 8 User Manual

[Hardware User Guide]

Date: July 2025



Table Of Contents

Part 1	Overview	3
	1 Introduction	
Part 2	Device Configuration	9
	1 MADRIX HARDWARE MANAGER [USB / Ethernet]	10
	2 Web Panel	13
	Menu Dashboard DMX Watcher Device List	20 24
	Presets	33
	Network	65
	Backup	77
Part 3	RDM And MADRIX RADAR	86
	1 Using RDM And MADRIX RADAR	87
Part 4	Technical Support	94
	1 Firmware Updates	95
Part 5	General	97
	1 PC Power Management	02
Part 6	Legal 1	17
	1 Imprint And Copyright	18





1 Overview

Topics Of This Chapter

- Introduction
- Hardware Features

1.1 Introduction

This topic includes:

- MADRIX STELLA 8
- <u>User Manuals</u>

MADRIX STELLA 8



MADRIX STELLA is the 8-port flagship controller with RDM support for ultimate control over DMX. It combines incredible features for DMX512 and RDM into a single DIN-rail controller that easily copes with high bandwidths in data-intensive lighting-control networks.

User Manuals

- MADRIX STELLA 8 User Manual: Use this manual to learn more about the web panel of the controller.
- MADRIX STELLA 8 Technical Manual: Learn how to install the physical device itself and details about power, data connections, and quick start.

1.2 Hardware Features

This topic includes:

- Art-Net
- Using A 3rd-Party Controller
- Access Over USB-C
- Reset

Art-Net

MADRIX STELLA 8 supports Art-Net 4, in protocol version **DI**.

MADRIX STELLA 8 works with a dynamically created BindIndex:

- Depending on your configuration of the unit, the number of configured input and output universes will each be represented by their own BindIndex; resulting in fewer or more indices.
- If configured to its fullest, 32 Sources, 32 Destinations, and 1 RDM universe will result in 65 indices.

Using A 3rd-Party Controller

MADRIX STELLA 8 is a standard network node. Because of this, you can use the controller with applications, consoles, desks, or controllers that are compatible with Art-Net or Streaming ACN [sACN] to receive network data via Ethernet network.

Access Over USB-C

The accessing device (Windows, macOS, Android, iOS) and controller will automatically create a network over USB by using a virtual link. There is no configuration needed! The controller has fixed IP addresses for each USB-C port, that cannot be changed and therefore are permanently accessible:

USB-C Front: 192.168.10.11 (Subnet mask: 255.255.255.0)

• **USB-C Side: 192.168.11.11** (Subnet mask: 255.255.255.0)

Important: This also means that a maximum of 2 units can be connected over USB-C to a single accessing device: 1x to USB-C Front and 1x to USB-C Side.

Reset

Send Art-Net PollReply Including Squawking

• Quickly pressing the 'Reset' button on the controller once using a suitable tool sends out a PollReply for communication with MADRIX® software and an Art-Net PollReply, incl. the Squawking flag for device identification.

Start Bootloader

- 1] Disconnect all cables from the controller (power, data, DMX).
- 2] Use a suitable tool to press the 'Reset' button (in the top right).
- 3] Continue to press the 'Reset' button and supply power again via 'Power', 'USB-C', or 'PoE'.
- 4] Continue to press the 'Reset' button for 1 or 2 seconds.

Reset To Factory Default Settings

In rare cases, you might need to do a reset to factory default settings:

- 1] Disconnect all cables from the controller (power, data, DMX).
- 2] Use a suitable tool to press the 'Reset' button (in the top right).
- 3] Continue to press the 'Reset' button and supply power again via 'Power', 'USB-C', or 'PoE'.
- 4] Continue to press the 'Reset' button and wait until all status LEDs of the controller flash or wait 5 seconds.
- [Simply repeat these steps should the process fail.]
- Alternatively, go to menu Hardware > Special Commands > Reset To Factory Default Settings in the controller's web panel. See menu »Hardware
- Or use MADRIX HARDWARE MANAGER. Learn more »MADRIX HARDWARE MANAGER [USB / Ethernet]



//PART 2
Device Configuration

2 Device Configuration

This topic includes:

- Overview
- Topics Of This Chapter

Overview

- **Web Panel:** The built-in web panel is the main way of configuring your controllers. By using a standard web browser, you gain quick access to all settings of the controller.
- MADRIX HARDWARE MANAGER: This software is available separately and for free. You can use it specifically to manage MADRIX hardware controllers, including their basic configuration and firmware updates.

Topics Of This Chapter

- MADRIX HARDWARE MANAGER [USB / Ethernet]
- Web Panel

2.1 MADRIX HARDWARE MANAGER [USB / Ethernet]

This topic includes:

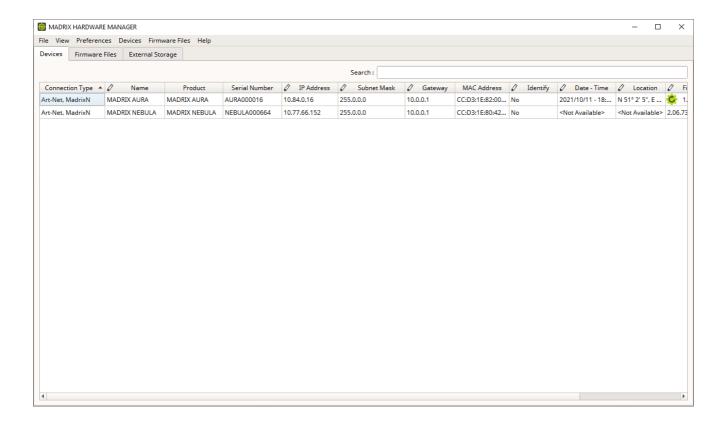
- Overview
- Device Configuration
- Firmware Updates
- More Information

Overview

MADRIX HARDWARE MANAGER is a software tool that is available separately and allows you to manage MADRIX hardware products.

It can be used for basic device configuration and to update the firmware of your controller.

Download from »www.madrix.com



Important Information

- An active internet connection is required to download firmware files. There are no files available
 when starting the software for the first time.
- Either use USB or the Ethernet connection!

When using both connection types devices will be shown with two different entries in the list, which may lead to severe issues when accidentally updating the device over both connections simultaneously.

 Make sure to -stop- sending data to your devices when managing them with MADRIX HARDWARE MANAGER.

This refers to input and/or output over Art-Net, sACN, DMX512, etc. Otherwise, changes and updates might fail.

Device Configuration

Basic Configuration

- 1] In MADRIX HARDWARE MANAGER, navigate to the Devices tab.
- 2] You will see connected devices in a list including their current main settings.
- 3] Basic settings can be changed and configured, including Name, IP Address, Subnet Mask,
 Gateway, and more.

Open Web Configuration

- 1] In *MADRIX HARDWARE MANAGER*, navigate to the *Devices* tab and select a controller/controllers in the list.
- 2] Right Mouse Click > Open Device Configuration Via HTTP... opens your standard web browser and the built-in web configuration of the selected controller.
- Learn more »Web Configuration

Restore Factory Default Settings

- 1] In *MADRIX HARDWARE MANAGER*, navigate to the *Devices* tab and select a controller/controllers in the list.
- 2] Right Mouse Click > Restore Factory Default Settings restores the original settings of the controller.

[Since this may change back the IP address to the original setting, the website will automatically be reloaded after a few seconds and you will automatically be redirected to the correct website and IP address.]

Firmware Updates

- 1] In *MADRIX HARDWARE MANAGER*, navigate to the *Firmware Files* tab and make sure you have the right [the latest] firmware version already downloaded and available. An active internet connection is required.
- 2] Go to the tab **Devices** and select a device/devices in the list.
- 3] Navigate to the column *Firm ware* and select the firmware you wish to install on the devices.

More Information

Please see the MADRIX HARDWARE MANAGER User Manual for more information.

See »help.madrix.com

2.2 Web Panel

This topic includes:

- Overview
- Hints For Mobile Devices
- Quick Start
- Topics Of This Chapter

Overview

- The web panel of MADRIX STELLA 8 is modern, mobile friendly, and multi-lingual.
 - By using a standard web browser, you gain quick access to all settings of the controller.
 - The design of the web panel automatically adjusts to the size of the accessing computer/mobile device. [A minimum display size of 320 x 480 pixels expected.]
 - You can choose your preferred language from the »Menu





Hints For Mobile Devices

- iOS: Converting from Lighting to USB-C requires an OTG (On The Go) adapter!
- Android: You need to deactivate all other networks first (Wi-Fi, Mobile Data)! Enabling Airplane Mode does not suffice.

Quick Start

- See a first overview over the controller in the menu »Dashboard
- Change the network settings of the controller, incl. IP address, under menu »Network
- Configure the controller for its designated purpose with the help of menu »Presets or the menu
 Advanced Configuration.

Topics Of This Chapter

- Menu
- Dashboard
- DMX Watcher
- Device List
- Presets
- Advanced
- Hardware
- Network
- Ports
- Update
- Backup
- Log
- Information

2.2.1 Menu

This topic includes:

- Left Menu
- Top Menu

Left Menu

★ Pinned

[Click To

Unpin Again]

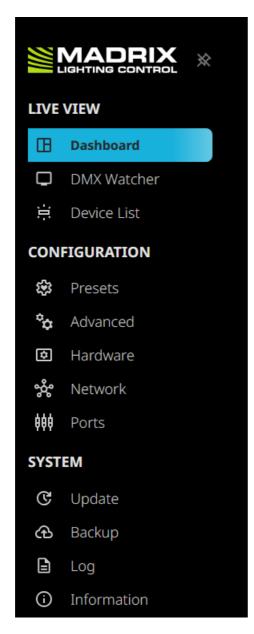
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Pin / Unpin - Allows you to decide if the left menu should always be visible [i.e. pinned] or not [i.e. unpinned].

- By default, the menu is pinned.
- By default, menu item **Dashboard** is selected.







Top Menu



Shows the Device Name (Long) of the controller and its serial number in combination with the current connection status:

- Connected
- Disconnected



If you experience a disconnect, for example in case the network cable got detached, the web panel should automatically reconnect to the controller again if the connection has been established again [in around 30 seconds]. Or you can simply reload the page in the web browser [Usually keyboard shortcut Ctrl + R or F5].

Autosave







If activated, shows the current status of the feature for automatic saving:

- Autosave Successful!
- Auto. Saving...
- Unsaved Changes!

Manual Save

If automatic saving is disabled, manual saving becomes available.







Unsaved Changes Preparing To Save

Save Successful!

Man. Saving...

Manual Saving Available

//17 www.madrix.com



Discard Changes

Notifications

Shows the latest errors.



For more information, go to menu »Log

Language Selection

The web panel is available in various languages. Choose from:



- Deutsch Activates the German language for the web panel.
- English Activates the English language for the web panel.
- 简体中文 Activates the **Simplified Chinese** language for the web panel.
- Español Activates the Spanish language for the web panel.
- Français Activates the French language for the web panel.
- हिन्दी Activates the **Hindi** language for the web panel.
- Bahasa Indonesia Activates the Indonesian language for the web panel.
- Italiano Activates the Italian language for the web panel.
- 日本語 Activates the **Japanese** language for the web panel.
- 한국어 Activates the **Korean** language for the web panel.
- Português brasileiro Activates the Brazilian Portuguese language for the web panel.
- **Русский** Activates the **Russian** language for the web panel.
- *Türkçe* Activates the *Turkish* language for the web panel.

The default setting is English.

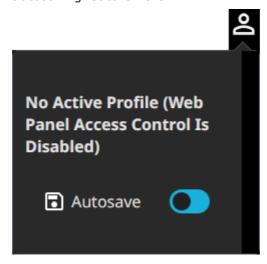
Profile

By default, no active profile is set up for the controller.



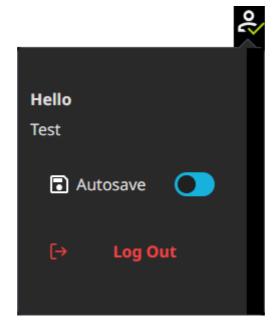
That means Web Panel Access Control is disabled.

 Autosave - As a shortcut, allows you to enable or disable the autosaving feature here.



If you are restricting access to the web panel by enabling Web Panel Access Control and by setting a Username and Password, a profile is created accordingly.

- See menu »Network to enable or disable Web Panel Access Control.
- Autosave As a shortcut, allows you to enable or disable the autosaving feature here.
- Log Out Locks access to the web panel again by logging you out.
- Important: You will automatically be logged out after 30 minutes of inactivity!

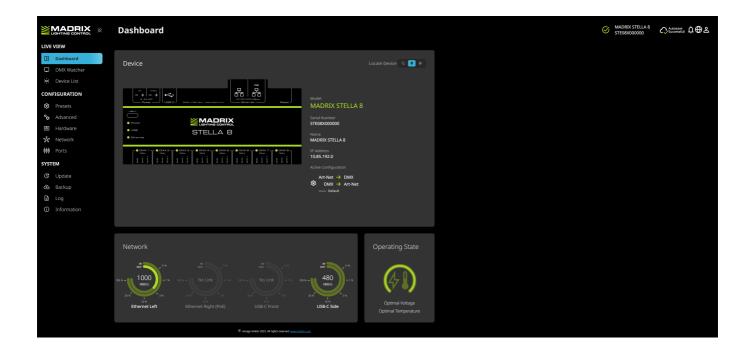


2.2.2 Dashboard

This topic includes:

- Overview
- Device
- Network
- Operating State

Overview



Device

Provides a comprehensive overview over major device characteristics.

Locate Device







Uses the Art-Net ArtAddress commands to set the controller's status LEDs.

- Mute Status Indicators Switches off and disables all built-in status indicators of a device over Art-Net [ArtAddress > AcLedMute].
- Operate Status Indicators Normally Allows the builtin status indicators of a device to operate normally again, after having them switched off [ArtAddress > AcLedNormal].
- Locate Device Activates the highlight mode
 [ArtAddress > AcLedLocate]. The corresponding status
 indicators of the selected interfaces will flash for a
 better identification or tests.

This makes it easier to see the device on site/stage. It considerably speeds up the procedure of programming or testing the selected interfaces.

In case of MADRIX STELLA 8, the MADRIX logo on the controller itself will be blinking as long as Locate Device is active.





Shows a helpful representation of the controller.

- In this way, you always have a picture of the controller and its physical layout available.
- A condensed version will be shown when displayed on mobile devices.
- The status LEDs for *Power*, *USB*, *Ethernet* as well as *DMX 1* to *DMX 8* will light up in this graphic the same way they are physically lit on the device itself.
 - See the **MADRIX STELLA 8 Technical Manual** for all Status-LED Codes
 - Even if *Mute Status Indicators* [see above] is enabled, the device status will be shown through the status LEDs here.
- The MADRIX Logo will blink if Locate Device is enabled [see above] or even sent to the device from the outside.
- The MADRIX Logo will appear red if the connection to the device has been lost.

 The PoE/Ethernet label/icon will blink green if PoE is connected and used.

Model Shows the device type, i.e. MADRIX STELLA 8.

Serial Number Shows the serial number of this unit.

Name Shows the Art-Net Long Name; as set under menu

»<u>Hardware</u>

IP Address Shows the currently used IP address.

Active Configuration Shows which configuration is currently active and selected for operation.

Shows Art-Net -> DMX / DMX -> Art-Net / Mode: Default, for example, if the default Preset is currently active.

See also menu »Presets

Shows Advanced if a custom configuration is being used.

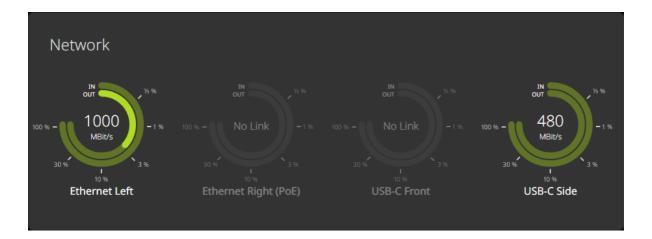
See also menu »Advanced

Network

Provides an overview over the main characteristics regarding network ports and communication. This includes:

- Ethernet Left
- Ethernet Right (PoE)
- USB-C Front
- USB-C Side

Information and values on this page are constantly being updated for you.



 Connection Speed - Shows the maximum speed that is available for this network connection.

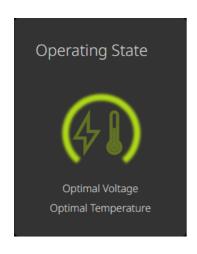
This includes: **1000 MBit/s** [Ethernet], **480 MBit/s** [USB-C], **100 MBit/s** [Ethernet], **10 MBit/s** [Ethernet], and **No Link** in case there is no connection.

- IN, 0% 100 % Shows the used bandwidth for incoming signals.

 OUT, 0% 100 % Shows the used bandwidth for outgoing signals.
 - Detailed data rates are available under menu »Information
 - Gray indicates no connection.
 - Dark Green indicates a successful connection.
 - Light Green indicates light bandwidth usage.
 - Orange indicates medium bandwidth usage.
 - Red indicates heavy bandwidth usage.

Operating State

Shows if working conditions are optimal or not optimal for the controller.



- Optimal Voltage Is the preferred and ideal state as the controller is able to operate normally regarding the supply of power.
- Voltage Too High The controller will manage its power and deactivate the DMX Ports.
 - It is advised to make sure that the controller receives the correct voltage!
- Voltage Too Low The controller will manage its power and deactivate the DMX Ports.
 - It is advised to make sure that the controller receives the correct voltage!
- *** Optimal Temperature** Is the preferred and ideal state as the controller is able to operate normally regarding the ambient temperature.
- **I Temperature Too High** The controller may shut down soon due to overheating or in general the longevity of the unit is threatened. The controller will deactivate the DMX Ports.
 - It is advised to make sure that the ambient temperature is lowered!
- **I Temperature Too Low** The controller will deactivate the DMX Ports.
 - It is advised to make sure that the ambient temperature is increased!

2.2.3 DMX Watcher

This topic includes:

- Overview
- Monitoring Data
- Creating Snapshots

Overview

Make sure to select the correct data source first [Reference / Index]!



Monitoring Data

The DMX Watcher allows you to monitor the DMX data the controller is receiving, processing, or sending out live.

Reference

Allows you to choose the data source:

- **DMX-OUT** [The actual processed output at the DMX port.]
- **DMX-IN** [The actual raw input at the DMX port.]
- **Source** [The data of the specified Source. Modifiers can be applied to Sources and thus change the data.]
- **Destination** [The data of the specified Destination. Modifiers can be applied to Sources and Destinations and thus change the data.]
- Snapshot [1-frame recordings you may have created in this menu. See <u>Creating</u> <u>Snapshots</u>]
- By default, DMX-OUT 01 is selected. When switching back to this view, the previously selected reference will be selected again.

Index

Allows you to select the specific index number, according to the specific source:

- 01 08 for Reference DMX-OUT [referring to the number of ports of the controller].
- 01 08 for Reference DMX-IN [referring to the number of ports of the controller].

- 01 32 for Reference Source [referring to the maximum number that can be defined].
- 01 32 for Reference Destination [referring to the maximum number that can be defined].
- 01 32 for Reference Snapshot [referring to the maximum number that can be created].
- By default, DMX-OUT 01 is selected. When switching back to this view, the previously selected index will be selected again.

Settings

Allows you to change the settings of the view.

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Note: 1 DMX Universe includes up to 512 DMX Channels.

- Refresh Rate Defines the speed at which the view and shown data is updated and refreshed; from slowest to fastest [0.1 Hz, 1 Hz, 10 Hz, Maximum].
- Show Bars Defines if shown data is visualized graphically with the help of green rectangles.
- Show Values Defines if the shown data is visualized with the help of the exact DMX values [ranging from 0 to 255].
- Number Of Columns Defines the graphical structure of the view.
 - Auto. Automatically arranges the columns depending on the window size. The fewer columns are possible, the more rows are shown.
 - Grid Allows you to define the size of sections. For example, by default the view is shown in section of 8 depending on the window size; meaning 8, 16, 24, or 32 colums are shown. Colum Grid allows you to change the section size accordingly.
 - Fixed Shows a maximum number of columns as defined by you via Number Of Fixed Columns



Pause - Halts the live view.



Live - Is only available if Pause has been clicked. Continues the live view to show DMX data in real time.

Frames Per Second

Shows the current data rate [in FPS].

DMX

Shows how many DMX channels are currently used.

Channels

Example: 510 Of 512 [for 170 RGB pixels and optimized frames; since $170 \times 3 = 510$]

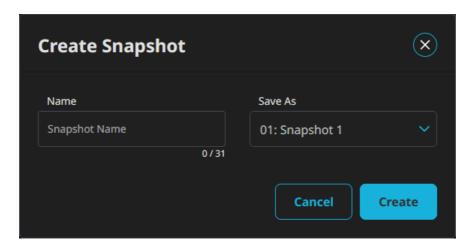
Creating Snapshots



Creates a 1-frame recording at the time of your click. [You might want to pause the live display beforehand.]

A new window opens.

[To record the data at the time of the click, the live view of the DMX Watcher is being paused until the creation process has finished.]



- Name Enter a label for the new Snapshot [with a maximum of 31 characters plus null].
- Save To Select to which index number the new Snapshot should be saved. Valid values range from 01 to 32.

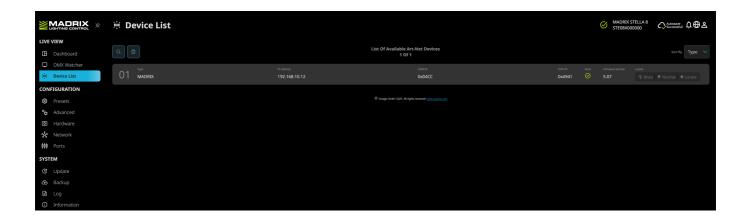
Snapshots can be used as data source for various functions of the controller, such as output, backup, highlighting, and more.

2.2.4 Device List

This topic includes:

- Overview
- List Of Available Art-Net Devices

Overview



List Of Available Art-Net Devices

MADRIX STELLA 8 uses standard mechanics of the Art-Net protocol to find available Art-Net devices in the network.



Search - Searches for Art-Net devices in the network. [Please allow a few seconds for devices to appear in the list.]



Remove - Removes all Art-Net devices from the list.

2 Of 2 Shows the number of Art-Net devices that are available and the number that has been [X Available Of found.

Y Found]

Sort By Allows you to sort the list alphabetically by Type, IP Address, State, or Firmware Version.

An index number of the Art-Net devices is provided for easier referencing.

Type Shows if the device could be identified further:

- Art-Net [For any generic Art-Net device that is not MADRIX software or a MADRIX hardware controller.]
- **MADRIX** [For MADRIX 5 Software.]
- MadrixTimeCodeSender [For MADRIX 5 Time Code Sender Software.]
- **PLEXUS** [For MADRIX PLEXUS devices.]
- LUNA 4 [For MADRIX LUNA 4 devices.]
- LUNA 8 [For MADRIX LUNA 8 devices.]
- LUNA 16 [For MADRIX LUNA 16 devices.]
- **NEBULA** [For MADRIX NEBULA devices.]
- STELLA [For MADRIX STELLA devices.]
- **ORION** [For MADRIX LUNA 8 devices.]
- **RADAR** [For MADRIX RADAR Software.]
- AURA [For MADRIX AURA devices.]
- STELLA 8 [For other MADRIX STELLA 8 devices.]

IP Address Shows the IP address of the Art-Net device.

If shown <u>underlined in blue</u>, it can be used as a click-able link to call up the Art-Net device with this IP address in the web browser.

OEM ID Shows the OEM ID the Art-Net device has reported.

ESTA ID Shows the ESTA ID the Art-Net device has reported.

State Shows the status of the Art-Net device.

• Timeout [The connection to this device has timed out.]

Available [The connection to the device is active.]

 \bigcirc

Firm ware

Shows the firmware version of the Art-Net device, if available.

Version

Locate Allows you to use the ArtAddress commands:

Nute

 Mute Status Indicators - Switches off and disables all built-in status indicators of a device over Art-Net [ArtAddress > AcLedMute].

• Normal

Operate Status Indicators Normally - Allows the built-in status indicators of a
device to operate normally again, after having them switched off [ArtAddress >
AcLedNormal].

Locate

Locate Device - Activates the highlight mode [ArtAddress > AcLedLocate]. The
corresponding status indicators of the selected interfaces will flash for a better
identification or tests.

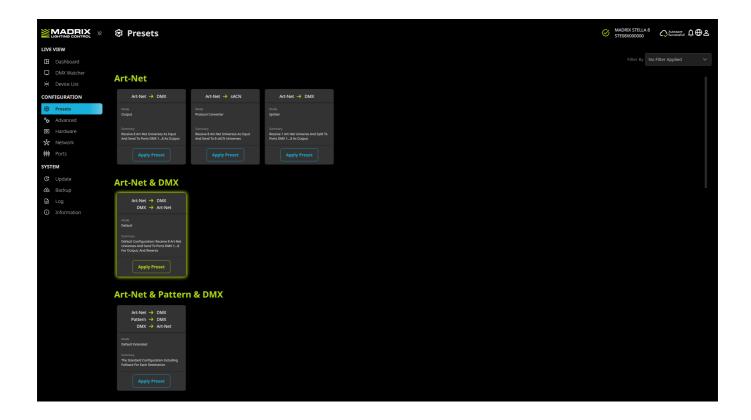
This makes it easier to see the device on site/stage. It considerably speeds up the procedure of programming or testing the selected interfaces.

2.2.5 Presets

This topic includes:

- Overview
- Introduction
- How To Activate A Preset

Overview



Introduction

For MADRIX STELLA 8, Presets are common configurations to quickly get started.

You can operate STELLA 8 as DMX controller, as DMX booster, as DMX splitter, as merger, as protocol converter, and much more.

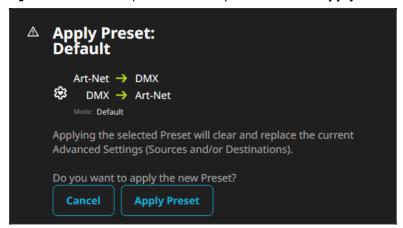
- Presets are grouped into categories, such as Art-Net, DMX, Pattern, etc.
- Each Preset offers more information:
 - Mode Describes the overall functionality of the underlying configuration, such as Output, Splitter,
 Input, Merger, Booster, etc.
 - Summary Describes the functionality of the underlying configuration in more detail.
- **Clear** Is a special category which removes all or parts of the current configuration, which may include all Sources and Destinations, or only Sources, or only Destinations.
- Presets Pattern -> DMX, Pattern -> Art-Net, Pattern -> sACN require that 8 Snapshots have been created first in order to work correctly. See »Creating Snapshots

In its default Preset, MADRIX STELLA 8 receives 8 universes over Art-Net via Ethernet [Art-Net universes 0 to 7] and sends them to DMX 1 to DMX 8 for DMX output as well as being ready to receive DMX input via the DMX 1 to DMX 8 and sending it out to Art-Net [Art-Net universes 248 to 255].

You can customize the settings of a Preset or create a completely individual configuration under menu »Advanced

How To Activate A Preset

- 1] Search for the functionality you require.
- 2] Simply click *Apply Preset* to load the Preset and therefore activate the underlying configuration.
- 3] A new window opens. Confirm your choice via Apply Preset or abort the process via Cancel



4] The currently active Preset is shown with a green glow.

[Note: The Presets *Clear Sources* and *Clear Destinations* will not show this glow as the exact state of configuration cannot be determined afterwards as different Sources and Destinations can still be configured.]



- **5]** The menu » <u>Dashboard</u> also shows if a Preset is currently active and which Preset that is.
- **6]** You can view the applied configuration in all of its details in the menu » Advanced Configuration.

2.2.6 Advanced

This topic includes:

- Overview
- Introduction
- Navigation
- Sources
- Destinations
- Configuration Tips

Overview



Introduction

The Advanced Configuration is -the- configuration section of MADRIX STELLA 8.

While it can be complex, simple configurations as well as the most advanced and customized configurations are possible here.

- You can start by loading and customizing one of the Presets under menu »Presets
- Or you can create a new configuration from the beginning.

Make sure to click Apply Settings after making any changes. Otherwise, your changes will be discarded.

Navigation

Sources

Allows you to choose the view between Sources and Destinations.

Destinations



Allows you to select all Sources or Destinations.

Shows the number of currently selected Sources or Destinations, as well as the total number of added Sources or Destinations.



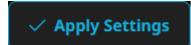
Delete - Removes all currently selected Sources or Destinations. Select one or more Sources or Destinations first.



Edit - Allows you to edit all currently selected Sources or Destinations [one item, or more items with multi-selection]. Select one or more Sources or Destinations first. A new window opens.



Add - Allows you to add new Sources or Destinations. A new window opens.



Apply Settings - Becomes available once you have changed any of the settings.

Make sure to click Apply Settings after making any changes. Otherwise, your changes will be discarded.



 ${\it View}$ - Quickly changes the tiles to show more or less information, and thus their size.

When minimizing tiles, the first tile will still be extended in order to see the section labels.

- Expand All Sources
- Expand All Destinations
- Expand All Advanced Settings
- Expand All Modifiers
- Collapse All Sources
- Collapse All Destinations
- Collapse All Advanced Settings
- Collapse All Modifiers



Filter - Allows you to change the view.

- Sort By Arranges Sources based on Destinations Ascending Order, Destinations Descending Order, Protocol, or State. Or Protocol and State for Destinations.
- State Only shows Sources or Destinations with State On or State
 Off.
- Protocol Only shows Sources or Destinations with Art-Net, DMX,
 sACN, or Pattern.
- Type Only shows the specific Source or Destination.
- Reset All Filters Restores the original view and does not apply any filters or sorting.

Sources

- Sources define where the data is being received from.
- Up to 32 Sources can be configured.

Make sure to click Apply Settings after making any changes. Otherwise, your changes will be discarded.

General Settings



Selection - Allows you to select the specific Source.

Name - Allows you to change the name of the Source via left mouse double-click [with a maximum of 31 characters plus null]. Or leave the default name.

Collapsed/Extended View - Quickly changes the tile to show more or less information, and thus its size.

State Allows you to enable or disable the specific Source.

Rate Shows the rate at which data is being received in FPS [Frames Per

Second].

Protocol Defines the type of data source, including Art-Net, DMX, sACN, Pattern

[including **Snapshots**].

Index Defines the index of the data source:

• *Universe* for Art-Net, ranging from 0 to 32,767.

- Port for DMX, ranging from 1 to 8 referring to the physical ports of the controller.
- Universe for sACN, ranging from 1 to 63,999.
- Index number for Pattern, ranging from 0 to 58.
 - 0 is All, 01-32 are Snapshots [if available], 33-58 are other Patterns.
 - See menu » <u>DMX Watcher</u> [for more information about Snapshots]
 - See <u>Highlight</u> [for more information about all available Patterns]

Send To Destination

Defines to which configured Destination the received data is being sent to.

See **Destinations**

Advanced Settings

Repeat Last Frame

If the data source is sending at a slow frame rate:

• The controller will repeat the last frame until a new frame is received [in order to achieve the desired output frame rate of the Destination].

If the connection to the data source has been lost:

• The controller will repeat the last frame that has been received.

For Patterns, including Snapshots:

 Cannot be disabled since the controller automatically creates a loop and always repeats the scene.

Limit To IP Address

Allows you to enter a specific IP address of your sender, when you wish to receive only from this single source.

Limit To Mode

For Art-Net, choose between:

- Unicast Receives only Unicast Art-Net data from one sender, e.g. your MADRIX computer.
- Broadcast Receives Art-Net data from all IP addresses in the network.
- Unicast & Broadcast Receives from both.

For sACN, choose between:

- Unicast Receives only Unicast sACN data from one sender, e.g. your MADRIX computer.
- Multicast Receives sACN data from multiple IP addresses in the network.
- Unicast & Multicast Receives from both.

Modifiers

Channels From

Allows you to shift the received data [512 DMX channels] if required, and works in combination with Within Range and Offset To.

Defines with which channels to start the shifting.

Valid values range from 1 to 512.

The default setting is 1/0/1, and thus no shifting is taking place by default.

Within Range Allows you to shift the received data [512 DMX channels] if required, and works in combination with Channels From and Offset To.

Defines how many channels will be shifted.

Valid values range from 1 to 512.

The default setting is 1/0/1, and thus no shifting is taking place by default.

Optimized Frames / Full Frames:

- Set Channels From 1, Within Range 0, Offset To 1 in order to receive Optimized
 Frames.
- Set Channels From 1, Within Range 512, Offset To 1 in order to receive Full Frames.

Offset To Allows you to shift the received data [512 DMX channels] if required, and works in combination with **Channels From** and **Within Range**.

Defines to which channels the data is shifted.

Empty channels will be filled with DMX value 0.

Valid values range from 1 to 512.

The default setting is 1/0/1, and thus no shifting is taking place by default.

Color Order Changes the order of channels.

- Original [meaning RGB would be 1-2-3, or RGBW would be 1-2-3-4]
- 1-3-2 [meaning the third channel is changed to position 2]
- **2-1-3** [meaning the first channel is changed to position 2]
- **2-3-1** [meaning the first channel is changed to position 3]
- **3-1-2** [meaning the third channel is changed to position 1]
- **3-2-1** [meaning the channel order is inverse for all three channels]
- 1-3-2-4 [meaning the third channel is changed to position 2]
- **2-1-3-4** [meaning the first channel is changed to position 2]
- **2-3-1-4** [meaning the first channel is changed to position 3]
- **3-1-2-4** [meaning the third channel is changed to position 1]
- **3-2-1-4** [meaning the first channel and third channel are being swapped]
- **4-1-2-3** [meaning the fourth channel is changed to position 1]
- **4-1-3-2** [meaning the fourth channel is changed to position 1 and the second channel is changed to position 4]
- **4-2-1-3** [meaning the fourth channel is changed to position 1 and the first channel is changed to position 3]
- **4-2-3-1** [meaning the fourth channel is changed to position 1 and the first channel is changed to position 4]
- **4-3-1-2** [meaning the fourth channel is changed to position 1 and the third channel is changed to position 2]

• 4-3-2-1 [meaning the channel order is inverse for all four channels]

Brightness

Sets the brightness level of the output [towards the LED fixtures by functioning as a dimmer].

For example, when the controller receives a DMX value of 255 on a channel, this would be dimmed to 127 when the Output Intensity is set to 50 %.

- Valid values range from 10 % to 100 %.
- The default value is 100 %.
- Can be used alone or at the same time as Intensity Limit. First, the controller applies the Brightness. Second, the Intensity Limit is applied.

Intensity Limit

Sets the maximum brightness level that can be sent.

- Valid values ranges from 1 to 255.
- The default value is 255.
- Can be used alone or at the same time as Brightness. First, the controller applies the Brightness. Second, the Intensity Limit is applied.

Priority

Allows you to set a custom priority for this Source.

This is especially useful when creating individual backup strategies with different data sources, i.e. a data source with a lower priority should take over once a data source with a higher priority is no longer available.

- Valid values range from 0 to 200.
- The default value is 0 [Disabled]. This means the default priorities will be assigned automatically:
- The default value for Protocol Art-Net is 100.
- The default value for Protocol DMX is 100.
- The default value for Protocol sACN is 100.
- The default value for Protocol Pattern is 100.
- The default value for feature Highlight is 250.
- The default value for feature Repeat Last Frame is 1.

Highlight

Highlight

On / Off - Allows you to enable or disable channel highlighting on the specific Source. [512 channels are sent per port.]

Use this workflow:

- 1] Choose one of the built-in Patterns
- 2] Activate On
- 3] To deactivate again, choose Pattern *Black*
- 4] Set to Off

You can choose from the following Patterns:

- 0 ••• All: Sets DMX value 255 for all 512 channels. This is the default pattern.
- 01 32 Snapshots 01 32: Only available when created by you. See »Creating Snapshots
- 33 B Black: Sets DMX value 0 for all 512 channels.
- **34** ■□□ *First Of Three*: Sets DMX value 255 for every third channel, starting with channel 1 [i.e. Red for RGB LEDs].
- 35 □■□ Second Of Three: Sets DMX value 255 for every third channel, starting with channel 2 [i.e. Green for RGB LEDs].
- 36 ■□■ First And Second Of Three: Sets DMX value 255 for every third channel, starting with channel 1 and 2 [i.e. Red and Green for RGB LEDs].
- 37 □□■ Third Of Three: Sets DMX value 255 for every third channel, starting with channel 3 [i.e. Blue for RGB LEDs].
- 38 ■□■ First And Third Of Three: Sets DMX value 255 for every third channel, starting with channel 1 and 3 [i.e. Red and Blue for RGB LEDs].
- 39 □■■ Second And Third Of Three: Sets DMX value 255 for every third channel, starting with channel 2 and 3 [i.e. Green and Blue for RGB LEDs].
- 40 ■□□□ First Of Four: Sets DMX value 255 for every fourth channel, starting with channel 1 [i.e. Red for RGBW LEDs].
- 41 □ ■□□ Second Of Four: Sets DMX value 255 for every fourth channel, starting with channel 2 [i.e. Green for RGBW LEDs].
- **42** □□■□ **Third Of Four**: Sets DMX value 255 for every fourth channel, starting with channel 3 [i.e. Blue for RGBW LEDs].
- 43 □□□■ Fourth Of Four: Sets DMX value 255 for every fourth channel, starting with channel 4 [i.e. White for RGBW LEDs].

- 44 🗀 3-Channel Fill: Sets DMX value 255 for the color channels, by switching through them: channel 1, channel 2, channels 1+2, channel 3, channels 1+3, channels 2+3 [thereby switching through the previous highlighting presets].
- 45 □□□ 3-Channel Run: Sets DMX value 255 for the color channels, by looping through each single one of them: channel 1, channel 2, channel 3 [i.e. first Red, second Green, third Blue, fourth Red, fifth Green, sixth Blue, and so on].
- 46 🗀 4-Channel Fill: Sets DMX value 255 for the color channels, by switching through them: channel 1, channel 2, channels 1+2, channel 3, channels 1+3, channels 2+3, channels 1+2+3, channel 4, channels 1+4, channels 2+4, channels 1+2+4, channels 3+4, channels 1+3+4, channels 2+3+4, channels, 1+2+3+4, all off.
- 47 DDD 4-Channel Run: Sets DMX value 255 for the color channels, by looping through each single one of them: channel 1, channel 2, channel 3, channel 4 [i.e. first Red, second Green, third Blue, fourth White, fifth Red, sixth Green, seventh Blue, eighth White, and so on].
- 48 ¬¬¬ Stepping Channels: Sets DMX value 255 for every single channel, one channel at a time, consecutively.
- 49 3-Channel Fading Fill: Is the 3-Channel Fill preset, but values are faded [slowly increased and decreased] instead of hard cuts.
- 50 3-Channel Fading Run: Is the 3-Channel Run preset, but values are faded [slowly increased and decreased] instead of hard cuts.
- 51 4-Channel Fading Fill: Is the 4-Channel Fill preset, but values are faded [slowly increased and decreased] instead of hard cuts.
- **52 4-Channel Fading Run**: Is the **4-Channel Run** preset, but values are faded [slowly increased and decreased] instead of hard cuts.
- 53 Fading Channels: Is the Stepping Channels preset, but values are faded [slowly increased and decreased] instead of hard cuts.
- 54 AM Ramp All: Fades all channels at the same time from and to DMX value 255 [i.e. White for RGB LEDs].
- 55 ▲ Ramp Wave: Creates a wave animation across all channels [i.e. White for RGB LEDs].
- 56 ■■■ 1 Ch. Blink, Remainder Black: Lets the first channel blink and sets DMX value 0 for all other channels.
- 57 ■■■ 1 Ch. Blink, Remainder White: Lets the first channel blink and sets DMX value 255 for all other channels.
- 58 Blink All: Lets all channels blink.

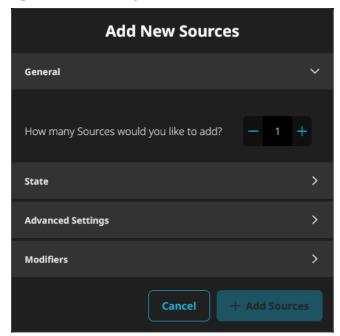
DMX Watcher

DMX Watcher Opens the DMX Watcher menu item in order to monitor incoming data live. See menu »DMX Watcher



Adding New Sources

- 1] Click +
- 2] A new window opens.



- 3] How many Sources would you like to add? Defines the number of new Sources that will be added.
- 4] Set up State, Advanced Settings, and Modifiers as explained above. You can also change all settings afterwards.
- 5] Click + *Add Sources* in order to confirm.

Destinations

- Destinations define where the data is being sent to.
- Up to 32 Destinations can be configured.

Make sure to click Apply Settings after making any changes. Otherwise, your changes will be discarded.

General Settings



Selection - Allows you to select the specific Destination.

Name - Allows you to change the name of the Destination via left mouse double-click [with a maximum of 31 characters plus null]. Or leave the default name.

Collapsed/Extended View - Quickly changes the tile to show more or less information, and thus its size.

State

Allows you to enable or disable the specific Destination.

Rate

Shows the rate at which data is being processed or sent in FPS [Frames Per Second].

You can see the final output rate, especially that of DMX, by using the »DMX
 Watcher or »Ports

Protocol

Defines the type of data output, including Art-Net, DMX, sACN.

Index

Defines the index of the data output:

- Universe for Art-Net, ranging from 0 to 32,767.
- Port for DMX, ranging from 1 to 8 referring to the physical ports of the controller.
- *Universe* for sACN, ranging from 1 to 63,999.

Advanced Settings

Art-Net

LTP

Applies the Latest Takes Precedence principle.

Is especially useful when sending multiple data sources to a single Source or multiple Sources to a single Destination for Merging.

When activated, the last received package will always win; basically meaning that there is no merge!

If ArtSync is received continuously from one data source, the first data source will be locked in and it will win against other data sources.

If LTP is disabled, i.e. in all other cases, Destinations are applying HTP merging!

IP Address

Allows you to enter a specific IP address of your receiver, when you wish to send data in Unicast mode [see below].

The default value is 10.255.255.255 [for Broadcast].

Mode

Choose between

- Unicast Sends Art-Net data only to one receiver. Enter the IP address of your receiver in the IP Address field above.
- Broadcast Sends Art-Net data to all IP addresses in the network.
 This is the default setting.

Send Over Ethernet

Sends Art-Net data over the Ethernet ports of the controller.

Send Over

USB (Virt.

Ethernet)

Sends Art-Net data over the USB ports of the controller via the virtual Ethernet link.

DMX

LTP

Applies the Latest Takes Precedence principle.

Is especially useful when sending multiple data sources to a single Source or multiple

Sources to a single Destination for Merging.

When activated, the last received package will always win; basically meaning that there is no merge!

If ArtSync is received continuously from one data source, the first data source will be locked in and it will win against other data sources.

If LTP is disabled, i.e. in all other cases, Destinations are applying HTP merging!

sACN

LTP Applies the Latest Takes Precedence principle.

Is especially useful when sending multiple data sources to a single Source or multiple Sources to a single Destination for Merging.

When activated, the last received package will always win; basically meaning that there is no merge!

If ArtSync is received continuously from one data source, the first data source will be locked in and it will win against other data sources.

If LTP is disabled, i.e. in all other cases, Destinations are applying HTP merging!

IP Address

Allows you to enter a specific IP address of your receiver, when you wish to send data in Unicast mode [see below].

Mode Choose between

- Unicast Sends sACN data only to one receiver. Enter the IP address of your receiver in the above IP Address field.
- Multicast Sends sACN data to all sACN devices in the network.
 This is the default setting.

Send Over Ethernet

Sends sACN data over the Ethernet ports of the controller.

Send Over

Sends sACN data over the USB ports of the controller via the virtual Ethernet link.

USB (Virt. Ethernet)

Modifiers

Channels From

Allows you to shift the sent data [512 DMX channels] if required, and works in combination with Within Range and Offset To.

Defines with which channels to start the shifting.

Valid values range from 1 to 512.

The default setting is 1/0/1, and thus no shifting is taking place by default.

Within Range Allows you to shift the sent data [512 DMX channels] if required, and works in combination with Channels From and Offset To.

Defines how many channels will be shifted.

Valid values range from 1 to 512.

The default setting is 1/0/1, and thus no shifting is taking place by default.

Note: For example, this allows you to spread the same universe over different output ports using different offsets.

Optimized Frames / Full Frames:

- Set Channels From 1, Within Range 0, Offset To 1 in order to send Optimized Frames.
- Set Channels From 1, Within Range 512, Offset To 1 in order to send Full Frames.

Offset To

Allows you to shift the sent data [512 DMX channels] if required, and works in combination with Channels From and Within Range.

Defines to which channels the data is shifted.

Empty channels will be filled with DMX value 0.

Valid values range from 1 to 512.

The default setting is 1/0/1, and thus no shifting is taking place by default.

Note: For example, this allows you to spread the same universe over different output ports using different offsets.

Color Order

Changes the order of channels.

- *Original* [meaning RGB would be 1-2-3, or RGBW would be 1-2-3-4]
- 1-3-2 [meaning the third channel is changed to position 2]
- **2-1-3** [meaning the first channel is changed to position 2]
- **2-3-1** [meaning the first channel is changed to position 3]
- **3-1-2** [meaning the third channel is changed to position 1]
- **3-2-1** [meaning the channel order is inverse for all three channels]
- 1-3-2-4 [meaning the third channel is changed to position 2]
- **2-1-3-4** [meaning the first channel is changed to position 2]
- **2-3-1-4** [meaning the first channel is changed to position 3]
- **3-1-2-4** [meaning the third channel is changed to position 1]
- 3-2-1-4 [meaning the first channel and third channel are being swapped]
- 4-1-2-3 [meaning the fourth channel is changed to position 1]
- **4-1-3-2** [meaning the fourth channel is changed to position 1 and the second channel is changed to position 4]
- **4-2-1-3** [meaning the fourth channel is changed to position 1 and the first channel is changed to position 3]
- **4-2-3-1** [meaning the fourth channel is changed to position 1 and the first channel is changed to position 4]
- **4-3-1-2** [meaning the fourth channel is changed to position 1 and the third channel is changed to position 2]
- 4-3-2-1 [meaning the channel order is inverse for all four channels]

Brightness

Sets the brightness level of the output [towards the LEDs by functioning as a dimmer]. For example, when the controller receives a DMX value of 255 on a channel, this would be dimmed to 127 when the Output Intensity is set to 50 %.

- Valid values range from 10 % to 100 %.
- The default value is 100 %.
- Can be used alone or at the same time as Intensity Limit. First, the controller applies the Brightness. Second, the Intensity Limit is applied.

Intensity Limit

Sets the maximum brightness level that can be sent.

- Valid values ranges from 1 to 255.
- The default value is 255.

 Can be used alone or at the same time as Brightness. First, the controller applies the Brightness. Second, the Intensity Limit is applied.

Highlight

Highlight

On / Off - Allows you to enable or disable channel highlighting on the specific Destination.

[512 channels are sent per port.]

Use this workflow:

- 1] Choose one of the built-in Patterns
- 2] Activate On
- 3] To deactivate again, choose Pattern Black
- 4] Set to Off

You can choose from the following Patterns:

- 0 ••• All: Sets DMX value 255 for all 512 channels. This is the default pattern.
- 01 32 Snapshots 01 32: Only available when created by you. See »Creating Snapshots
- 33 B Black: Sets DMX value 0 for all 512 channels.
- 34 ■□□ First Of Three: Sets DMX value 255 for every third channel, starting with channel 1 [i.e. Red for RGB LEDs].
- 35 □■□ Second Of Three: Sets DMX value 255 for every third channel, starting with channel 2 [i.e. Green for RGB LEDs].
- 36 ■□■ First And Second Of Three: Sets DMX value 255 for every third channel, starting with channel 1 and 2 [i.e. Red and Green for RGB LEDs].
- 37 □□■ Third Of Three: Sets DMX value 255 for every third channel, starting with channel 3 [i.e. Blue for RGB LEDs].
- 38 ■□■ First And Third Of Three: Sets DMX value 255 for every third channel, starting with channel 1 and 3 [i.e. Red and Blue for RGB LEDs].
- 39 □■■ Second And Third Of Three: Sets DMX value 255 for every third channel, starting with channel 2 and 3 [i.e. Green and Blue for RGB LEDs].
- 40 ■□□□ First Of Four: Sets DMX value 255 for every fourth channel, starting with channel 1 [i.e. Red for RGBW LEDs].

- 41 □■□□ Second Of Four: Sets DMX value 255 for every fourth channel, starting with channel 2 [i.e. Green for RGBW LEDs].
- **42** □□■□ **Third Of Four**: Sets DMX value 255 for every fourth channel, starting with channel 3 [i.e. Blue for RGBW LEDs].
- 43 □□□■ Fourth Of Four: Sets DMX value 255 for every fourth channel, starting with channel 4 [i.e. White for RGBW LEDs].
- 44 🗀 3-Channel Fill: Sets DMX value 255 for the color channels, by switching through them: channel 1, channel 2, channels 1+2, channel 3, channels 1+3, channels 2+3 [thereby switching through the previous highlighting presets].
- 45 and 3-Channel Run: Sets DMX value 255 for the color channels, by looping through each single one of them: channel 1, channel 2, channel 3 [i.e. first Red, second Green, third Blue, fourth Red, fifth Green, sixth Blue, and so on].
- 46 □□□□ 4-Channel Fill: Sets DMX value 255 for the color channels, by switching through them: channel 1, channel 2, channels 1+2, channel 3, channels 1+3, channels 2+3, channels 1+2+3, channel 4, channels 1+4, channels 2+4, channels 1+2+4, channels 3+4, channels 1+3+4, channels 2+3+4, channels 1+2+3+4, all off.
- 47 4-Channel Run: Sets DMX value 255 for the color channels, by looping through each single one of them: channel 1, channel 2, channel 3, channel 4 [i.e. first Red, second Green, third Blue, fourth White, fifth Red, sixth Green, seventh Blue, eighth White, and so on].
- 48 ¬¬¬ Stepping Channels: Sets DMX value 255 for every single channel, one channel at a time, consecutively.
- 49 3-Channel Fading Fill: Is the 3-Channel Fill preset, but values are faded [slowly increased and decreased] instead of hard cuts.
- 50 3-Channel Fading Run: Is the 3-Channel Run preset, but values are faded [slowly increased and decreased] instead of hard cuts.
- 51 4-Channel Fading Fill: Is the 4-Channel Fill preset, but values are faded [slowly increased and decreased] instead of hard cuts.
- **52 4-Channel Fading Run**: Is the **4-Channel Run** preset, but values are faded [slowly increased and decreased] instead of hard cuts.
- 53 Fading Channels: Is the Stepping Channels preset, but values are faded [slowly increased and decreased] instead of hard cuts.
- 54 AM Ramp All: Fades all channels at the same time from and to DMX value 255 [i.e. White for RGB LEDs].

- 55 ▲ Ramp Wave: Creates a wave animation across all channels [i.e. White for RGB LEDs].
- 56 ■■■ 1 Ch. Blink, Remainder Black: Lets the first channel blink and sets DMX value 0 for all other channels.
- 57 ■■■ 1 Ch. Blink, Remainder White: Lets the first channel blink and sets DMX value 255 for all other channels.
- 58 Blink All: Lets all channels blink.

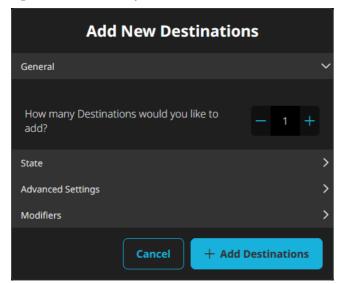
DMX Watcher

DMX Watcher Opens the DMX Watcher menu item in order to monitor incoming data live. See menu »DMX Watcher



Adding New Destinations

- 1] Click +
- 2] A new window opens.



 3] How many Destinations would you like to add? - Defines the number of new Destinations that will be added.

- 4] Set up State, Advanced Settings, and Modifiers as explained above. You can also change all settings afterwards.
- 5] Click + *Add Destinations* in order to confirm.

Configuration Tips

Use the built-in Presets to quickly get started!

DMX Controller — Output/DMX-OUT

- Setting up eDMX Sources and sending them to DMX Destinations.
- For each received universe, choose your Source: Protocol, i.e. Art-Net or sACN.
- Set up the number of required DMX ports = number of Destinations with Protocol DMX and index 01 –
 08.

DMX Controller - Input/DMX-IN

- Setting up DMX Sources and sending them to eDMX Destinations.
- If DMX to eDMX is also configured, DMX-IN automatically becomes active if no eDMX is sent to the device and DMX is received on the DMX ports.
- Set up the number of receiving DMX ports = number of Sources with Protocol DMX and index 01 08.
- For each received universe, set up a Destination with Destination: Protocol, i.e. Art-Net or sACN.

DMX Splitter

- Setting up single DMX Sources and sending them multiple times to several DMX Destinations.
- Set up the number of required DMX ports = number of Destinations with Protocol DMX. For 4 output ports, use index 05 08, for example.
- Set up 4 Sources with Protocol: DMX and Index 01 and send to each of the 4 different Destinations, for example.

DMX Booster

• Setting up several DMX Sources and sending them to several DMX Destinations.

• Each different Source: Protocol DMX has one different Destination: Protocol DMX, such as Index 1 [Source] to Index 2 [Destination], Index 3 [Source] to Index 4 [Destination], Index 5 [Source] to Index 6 [Destination], Index 7 [Source] to Index 8 [Destination].

Protocol Converter

- Setting up eDMX Sources and sending them to eDMX Destinations.
- For every required Source/Destination universe, choose Source: Protocol Art-Net and then Destination: Protocol sACN; or choose Source: Protocol sACN and then Destination: Protocol Art-Net.

Backup Strategies

- Using the special Priority feature of the controller to assign staggered priority levels to different
- Set up additional Sources with a lower Priority than the default priority [as described above] and they
 will be used instead after having received no signal for 3 seconds.

Merger - DMX/eDMX

- Sending multiple data sources to single Sources and/or sending multiple Sources to Destinations.
- You can send up to 8 different data sources [with different IP addresses] to a single Source.
- Up to 8 different Sources can be sent to a single Destination.
- Destinations are always applying HTP merging; except when LTP is enabled.

In Case Of Missing Network Data

You can set up an extra Source with Pattern 33 Black or 0 All and give it a lower Priority [than your main Source] in order to send a last black or white frame after the connection to your main data source has been lost.

Important Notes

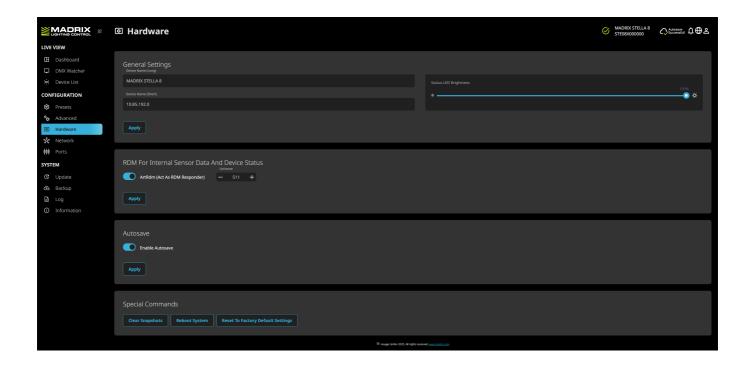
When receiving Art-Net and sending data out as Art-Net again [e.g. DMX to Art-Net, or Art-Net to Art-Net], make sure that your output universes are —not— the same as your input universes; or otherwise you will create a loop.

2.2.7 Hardware

This topic includes:

- Overview
- General Settings
- RDM For Internal Sensor Data And Device Status
- Autosave
- Special Commands

Overview



General Settings

Device Name This refers to Long Name identifier used by Art-Net [with a maximum of 63 characters plus (Long) null].

Also refers to DEVICE_LABEL within the RDM specifications [with a maximum of 31

characters plus null].

The default value is MADRIX STELLA 8.

Device Name This refers to Short Name identifier used by Art-Net [with a maximum of 17 characters

(Short) plus null].

The default value is the IP address of this controller, e.g. 10.85.192.0.

Status-LED Sets the maximum brightness level of the controller's physical status LEDs.

Brightness Valid values range from 10 % to 100 %.

The default value is 100 %.

Confirm any changes with Apply

RDM For Internal Sensor Data And Device Status

ArtRdm (Act Allows you to enable or disable ArtRdm.

As RDM By default, this setting is enabled.

Responder)

ArtRdm allows the device to be able to reply to RDM requests by an RDM Controller as an RDM Responder over Art-Net with its status and sensor data.

This enables monitoring of the MADRIX STELLA 8 via RDM, such as the MADRIX RADAR Software.

MADRIX STELLA 8 mainly provides data regarding:

- Various Temperature Values
- Various Voltage Values
- Device Model [incl. Hardware Revision]
- Software Version [of the Firmware and Bootloader]
- And other device information, such as IP Address, Device Short/Long Name, etc.
- Learn more » Using RDM And MADRIX RADAR

Universe Defines the universe on which sensor data is relayed.

Valid values range from 0 to 32767.

The default value is 511. [Which is universe 512 for 1-based indexes.]

Confirm any changes with Apply

Autosave

Enable Allows you to enable or disable the automatic saving feature.

Autosave This makes sure that settings are automatically saved on the device after making

changes in the web panel.

You can also quickly change this setting in the top menu under $\stackrel{f \circ}{\simeq}$

Confirm any changes with Apply

Special Commands

Clear Deletes all Snapshots you have created from the controller. Snapshots Confirm your choice via Delete or abort the process via Cancel

Learn more under menu »DMX Watcher

Reboot Restarts the controller completely.

System Confirm your choice via *Reboot* or abort the process via *Cancel*

[The website will automatically be reloaded after 30 seconds.]

//56 www.madrix.com

Reset To Restores the original settings of the controller.

Factory [Snapshots will also be cleared.]

Default Confirm your choice via Reset Settings or abort the process via Cancel

Settings

The MADRIX Logo on the controller will flash repeatedly during the short process.

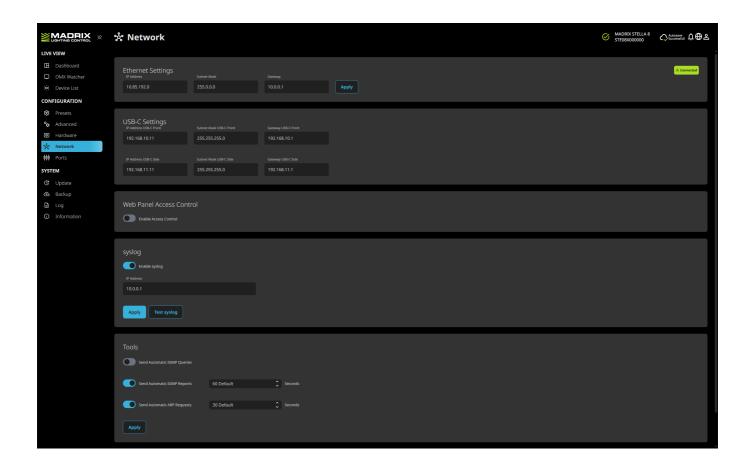
[Since this will change back the IP address to the original setting, the web panel will automatically be reloaded after a few seconds and you will automatically be redirected to the correct web panel and IP address.]

2.2.8 Network

This topic includes:

- Overview
- Ethernet Settings
- USB-C Settings
- Web Panel Access Control
- syslog
- Tools

Overview



Ethernet Settings

You can change the essential network device settings if required.

IP Address

Is an identifier for devices that enables network communication. When using network protocols, it needs to be unique and set up for each individual sender or recipient in the network.

This also facilitates access to the web panel of the controller when connected over Ethernet network.

• By default, your controller already has set a valid IP address [for example, **10.85.192.0**].

Subnet Mask Is a technical grouping mechanism for network devices. When using network protocols, it needs to be set up for each sender or recipient in the network for correct data routing.

- Your devices and the sender, such as the computer that runs the MADRIX 5 Software, need to have the same subnet mask!
- By default, your controller already has set a valid subnet mask [255.0.0.0].

Gateway

Is a technical routing mechanism for Ethernet networks, which acts as the main receiver in case the original network recipients are not available anymore, i.e. it is the fallback address of the network.

- When using network protocols, it needs to be in the same network as the IP address and in this way set up correctly for network communication to work.
- By default, your controller already has set a valid gateway [10.0.0.1].



Shows that you are currently accessing the controller's web panel via this connection type [Ethernet].

Confirm any changes with Apply

The Network Settings are essential device settings!

Changing them may prevent you from connecting to the controller's web panel until you adjust the network settings of the computer/mobile device you are accessing it with.

USB-C Settings

The following settings cannot be changed.

When connecting to MADRIX STELLA 8 over USB, a virtual Ethernet connection will be automatically created by the accessing device (Windows, macOS, Android, iOS). No further configuration is necessary! This allows you to access the unit via its web panel and send/receive data as if directly connected over Ethernet computer network.

If you <u>cannot</u> reach your unit via the IP address you are entering, try the connection via USB-C. The accessing device (Windows, macOS, Android, iOS) and controller will automatically create a network over USB by using a virtual link. There is no configuration needed! The controller has fixed IP addresses for each USB-C port, that cannot be changed and therefore are permanently accessible:

IP Address

Shows the IP address of the USB-C Front port.

- USB-C FrontIt is a fixed setting with 192.168.10.11
 - The computer/mobile device counterpart is then 192.168.10.12

Subnet Mask

Shows the subnet mask of the USB-C Front port.

USB-C Front

It is a fixed setting with 255.255.255.0

Gateway

Shows the gateway of the USB-C Front port.

USB-C Front

It is a fixed setting with 192.168.10.1

IP Address USB-C Side

Shows the IP address of the USB-C Side port.

• It is a fixed setting with 192.168.11.11

• The computer/mobile device counterpart is then 192.168.11.12

Subnet Mask

Shows the subnet mask of the USB-C Side port.

USB-C Side

• It is a fixed setting with 255.255.255.0

Gateway

Shows the gateway of the USB-C Side port.

USB-C Side

• It is a fixed setting with 192.168.11.1



Shows that you are currently accessing the controller's web panel via this connection type [USB-C].

MAC Address

Devices connected over USB-C receive the MAC address 00:00:00:00:00.

Important: Connecting Several MADRIX STELLA 8 Units Via USB

When connecting only via USB, the fixed IP addresses have the following implication:

If you are connecting several units via USB-C, a maximum of 2 units can be connected to the same accessing computer/mobile device and you must use 1x USB-C Front for unit 1 and 1x USB-C Side for unit 2.

If connecting more than 2 units, your accessing device will report IP address conflicts and the units' web panels cannot be properly accessed.

Web Panel Access Control

You can set a Password to restrict access to the web panel of this controller and therefore prevent any changes to its configuration.

Enable Allows you to enable or disable the access control.

Access

Once enabled, the following options become available:

Control

Make sure to remember the chosen Username and Password!

Username Enter a profile name [with a maximum of 31 characters plus null]..

Password Enter a password [with a maximum of 31 characters plus null].

The UTF-8 character set is supported. Special characters might reduce the total possible

character count.

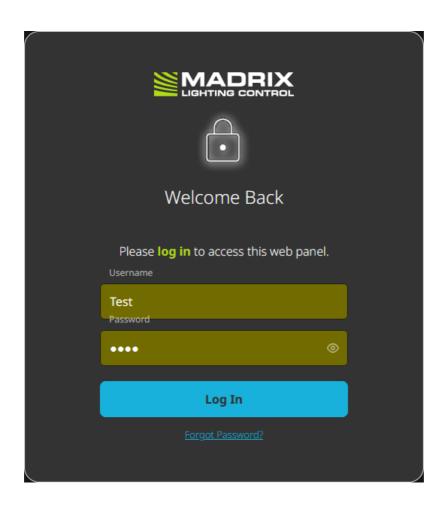
Verify Enter your chosen password a second time for verification.

Password Please enter it the exact same way you entered it the first time!

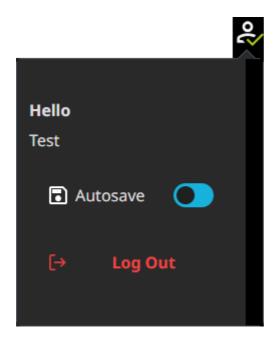
Confirm any changes with Apply

When successful, you will be asked for your login:

- Enter your chosen *Username*
- Enter your chosen *Password* You can show the entered password via the eye symbol.
- Confirm with Log In



When logged in, the menu will show it accordingly:



Log Out

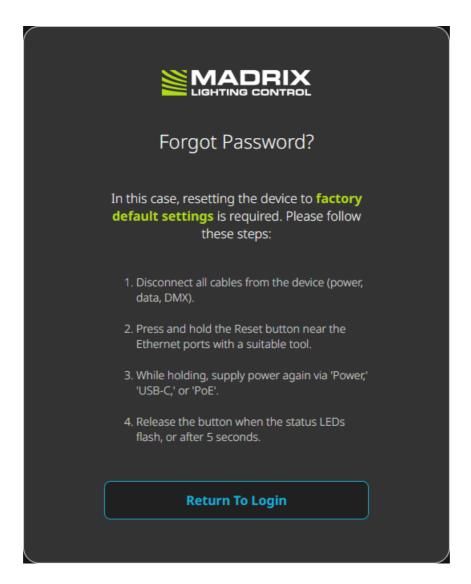
Locks access to the web panel again by logging you out.

- You are then forced to log into the web panel again with the set Username and Password before you can access the device and its web panel again.
- Important: You will automatically be logged out after 30 minutes of inactivity!

Forgot Password?

In case you <u>cannot</u> remember the chosen Username and Password, access to the device can only be restored by performing a Reset To Factory Default Settings. This must be done in person and thus requires personal access to the controller itself.

Follow the steps as described:



syslog

In addition to its own Log under menu »Log, MADRIX STELLA 8 can send its logged system information and warnings to an external [syslog] server.

Port 514 UDP

Enable syslog Allows you to enable or disable the syslog functionality. The following information is included:

- Warning levels include INFO, WARNING, ERROR
- Serial Number
- The unit's **Uptime**
- Message [UTF-8/TR36] [max. size 480 bytes]
- Category **BL** [Bootloader] or **FW** [Firmware]
- Once at each start: Software/Bootloader/Firmware Version
- Once at each start: CPU ID
- Once at each start: Manufacturer: Madrix
- Once at each start: Model/Type: Stella8

By default, this setting is disabled.

IP Address

Is only available if syslog is enabled. Allows you to enter the IP address of the server, i.e. the target to which syslog entries are sent.

• Make sure to enter the correct IP address!

Test syslog Sends a test message to the specified IP address.

Confirm any changes with Apply

Tools

Includes additional settings for specific network configuration.

Send **Automatic IGMP Queries**

Sends queries of the Internet Group Management Protocol to hosts in order to renew the membership in the multicast group, with regards to the controller being an sACN sender.

- Valid settings range from 0 to 600 [in intervals of 30].
- The default setting is Off.

Send **Automatic IGMP Reports**

Sends reports of the Internet Group Management Protocol in order to maintain the membership in the multicast group, with regards to the controller being an sACN receiver.

- Enter the time interval [in seconds].
- Valid settings range from 0 to 600 [in intervals of 30].
- The default setting is On and 60 Seconds.

Send

Sends an Gratuitous ARP to make sure that the Ethernet connection is kept alive.

Automatic

The operation code is 2 and target address is a normal MAC broadcast.

ARP Requests An ARP Announcement packet is also sent immediately in case the network connection has been established successfully.

- Enter the time interval [in seconds].
- Valid settings range from 0 to 600 [in intervals of 30].
- The default setting is On and 30 Seconds.

Confirm any changes with Apply

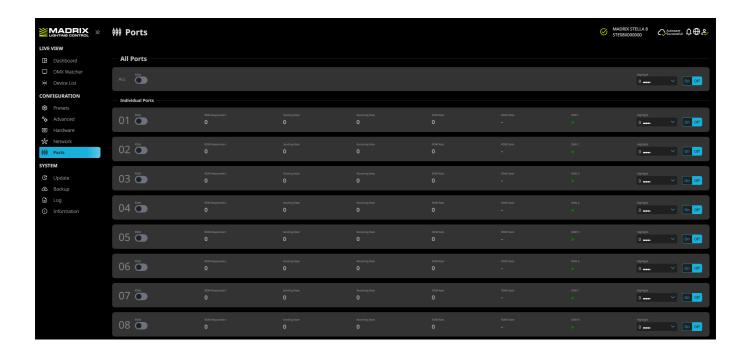
2.2.9 Ports

This topic includes:

- Overview
- Ports

Overview

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Ports

Overview

This feature refers to the physical ports **DMX 1 – DMX 8** of the controller.

All Ports

RDM Allows you to enable or disable the RDM Controller functionality for all ports at once.

Learn more below.

Highlight Allows you to set the highlighting pattern for all ports at once, and enable or disable it

accordingly.

Learn more below.

Individual Ports

01 - 08An index number of the ports is provided for easier referencing.

RDM

Allows the device to receive and send Remote Device Management data on the specific port [to act as an RDM Controller].

This means that MADRIX STELLA 8 transmits commands and requests to RDM Responders and back; i.e. connected RDM devices receive instructions.

- Disable RDM on the specific port, when using STELLA 8 for DMX-IN on this port [to receive DMX data]!
- Only enable RDM if you wish to use it. Otherwise, disable RDM to avoid any potential issues.

See also »Using RDM And MADRIX RADAR

RDM Responders

Shows the number of uniquely identified RDM devices discovered and connected to the controller.

• This value may change continuously during an active RDM discovery process.

Sending Rate Shows the current frequency with which the controller is putting data out in FPS [Frames Per Second].

• This value may change continuously during operation.

Receiving Rate

Shows the current frequency with which the controller is receiving data in FPS [Frames Per Second].

This value may change continuously during operation.

RDM Rate

Shows the current frequency with which the controller is sending or receiving RDM data in FPS [Frames Per Second].

This value may change continuously during operation.

RDM State

8

Shows the state of the RDM module, including **Discovery** or -.

DXM 1 - DMX Shows the status LED of the specific port in the same way it is physically lit/behaving on the controller itself.

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Highlight

On / Off - Allows you to enable or disable channel highlighting on the specific port. [512 channels are sent per port.]

Use this workflow:

- 1] Choose one of the built-in Patterns
- 2] Activate On
- 3] To deactivate again, choose Pattern Black
- 4] Set to Off

You can choose from the following Patterns:

- 0 ••• All: Sets DMX value 255 for all 512 channels. This is the default pattern.
- 01 32 Snapshots 01 32: Only available when created by you. See »Creating Snapshots
- 33 Black: Sets DMX value 0 for all 512 channels.
- 34 ■□□ First Of Three: Sets DMX value 255 for every third channel, starting with channel 1 [i.e. Red for RGB LEDs].
- 35 □■□ Second Of Three: Sets DMX value 255 for every third channel, starting with channel 2 [i.e. Green for RGB LEDs].
- 36 ■□■ First And Second Of Three: Sets DMX value 255 for every third channel, starting with channel 1 and 2 [i.e. Red and Green for RGB LEDs].
- 37 □□■ Third Of Three: Sets DMX value 255 for every third channel, starting with channel 3 [i.e. Blue for RGB LEDs].
- 38 ■□■ First And Third Of Three: Sets DMX value 255 for every third channel, starting with channel 1 and 3 [i.e. Red and Blue for RGB LEDs].
- 39 □■■ Second And Third Of Three: Sets DMX value 255 for every third channel, starting with channel 2 and 3 [i.e. Green and Blue for RGB LEDs].
- 40 ■□□□ First Of Four: Sets DMX value 255 for every fourth channel, starting with channel 1 [i.e. Red for RGBW LEDs].
- 41 □ ■□□ Second Of Four: Sets DMX value 255 for every fourth channel, starting with channel 2 [i.e. Green for RGBW LEDs].
- **42** □□■□ **Third Of Four**: Sets DMX value 255 for every fourth channel, starting with channel 3 [i.e. Blue for RGBW LEDs].
- 43 □□□■ Fourth Of Four: Sets DMX value 255 for every fourth channel, starting with channel 4 [i.e. White for RGBW LEDs].

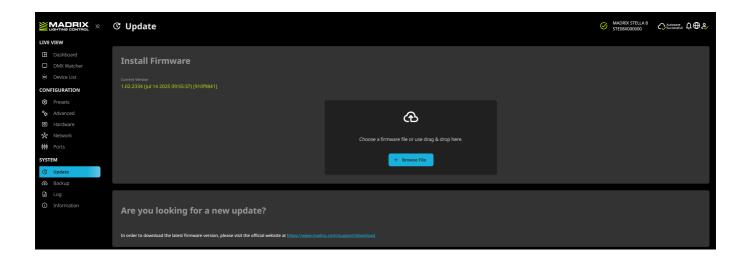
- 44 DDD 3-Channel Fill: Sets DMX value 255 for the color channels, by switching through them: channel 1, channel 2, channels 1+2, channel 3, channels 1+3, channels 2+3 [thereby switching through the previous highlighting presets].
- 45 □□□ 3-Channel Run: Sets DMX value 255 for the color channels, by looping through each single one of them: channel 1, channel 2, channel 3 [i.e. first Red, second Green, third Blue, fourth Red, fifth Green, sixth Blue, and so on].
- 46 🗀 4-Channel Fill: Sets DMX value 255 for the color channels, by switching through them: channel 1, channel 2, channels 1+2, channel 3, channels 1+3, channels 2+3, channels 1+2+3, channel 4, channels 1+4, channels 2+4, channels 1+2+4, channels 3+4, channels 1+3+4, channels 2+3+4, channels, 1+2+3+4, all off.
- 47 DDD 4-Channel Run: Sets DMX value 255 for the color channels, by looping through each single one of them: channel 1, channel 2, channel 3, channel 4 [i.e. first Red, second Green, third Blue, fourth White, fifth Red, sixth Green, seventh Blue, eighth White, and so on].
- 48 ¬¬¬ Stepping Channels: Sets DMX value 255 for every single channel, one channel at a time, consecutively.
- 49 3-Channel Fading Fill: Is the 3-Channel Fill preset, but values are faded [slowly increased and decreased] instead of hard cuts.
- 50 3-Channel Fading Run: Is the 3-Channel Run preset, but values are faded [slowly increased and decreased] instead of hard cuts.
- 51 4-Channel Fading Fill: Is the 4-Channel Fill preset, but values are faded [slowly increased and decreased] instead of hard cuts.
- **52 4-Channel Fading Run**: Is the **4-Channel Run** preset, but values are faded [slowly increased and decreased] instead of hard cuts.
- 53 Fading Channels: Is the Stepping Channels preset, but values are faded [slowly increased and decreased] instead of hard cuts.
- 54 AM Ramp All: Fades all channels at the same time from and to DMX value 255 [i.e. White for RGB LEDs].
- 55 ▲ Ramp Wave: Creates a wave animation across all channels [i.e. White for RGB LEDs].
- 56 ■■■ 1 Ch. Blink, Remainder Black: Lets the first channel blink and sets DMX value 0 for all other channels.
- 57 ■■■■ 1 Ch. Blink, Remainder White: Lets the first channel blink and sets DMX value 255 for all other channels.
- 58 Blink All: Lets all channels blink.

2.2.10 Update

This topic includes:

- Overview
- Install Firmware

Overview



- It is highly recommended to update the firmware should a new firmware version become available.
- See released firmware versions »Firmware Updates

Install Firmware

Overview

It is recommended to always use the latest firmware for your controller!

Current Version Shows the currently installed firmware version.

Workflow

- + Browse File Click to choose the firmware file to upload.
 - Supported file formats are *.ebin [Firmware] and *.ubin [Bootloader].
 - New firmware files can be downloaded from https://www.madrix.com/support/download

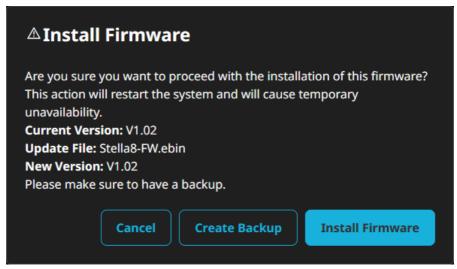


Alternatively, use drag and drop with your mouse to place the firmware file directly on the field.

- A confirmation dialog will be shown.
- Make sure to upload the correct file!
- Create Backup It is recommended to have a backup of the controller's current settings before proceeding.

Click to create and download a backup file now.

Install Firm ware - Confirm in order to proceed.

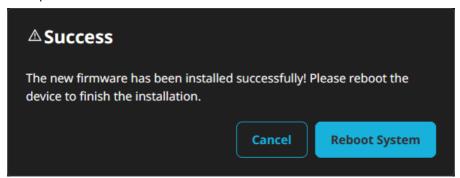


- A new window opens and shows the installation progress:
 - Firmware Updates: The status LEDs of the Ports are blinking green from right to left during the upload and installation process.

- Bootloader Updates: The status LEDs of the Ports are blinking yellow from right to left during the upload and installation process.



 Afterwards, the device will automatically disconnect and reconnect. A new window will open:



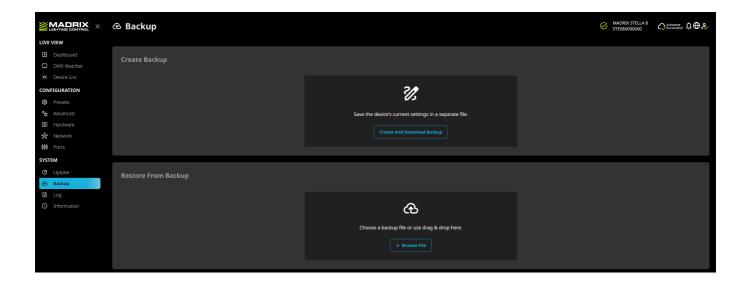
Confirm with Reboot System

2.2.11 Backup

This topic includes:

- Overview
- Create Backup
- Restore From Backup

Overview



Create Backup

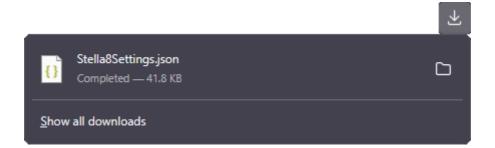
Allows you to save the controller's settings.

Create And Download Backup

Saves the controller's current settings in a separate file [in *.json file format, named Stella8Settings.json].

B

The download manager of your web browser should automatically take over and manage the download, including its stored location.



Restore From Backup

Overview

+ Browse File Applies the device settings stored in a previously saved backup file.

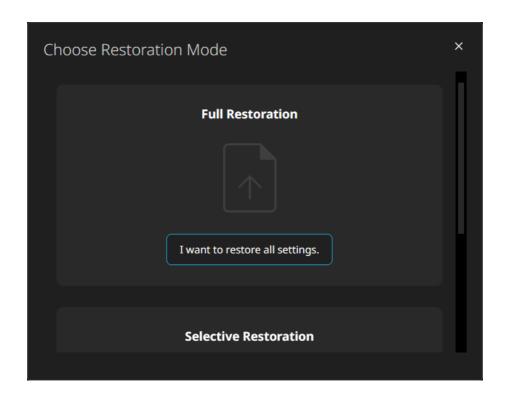
Choose the *.json file from your system via the *File Upload* dialog that is provided by your web browser afterwards.

Alternatively, use drag and drop with your mouse to place the *.json backup file directly on the field.

Note: Always create a fresh backup! You will receive a notification if the Backup was created with a different API version than your unit might currently run based on a newer firmware version. This could lead to problems due to incompatibility.

Full Restoration

I want to Choose if you would like to restore all saved settings from the backup file.
restore all
settings.

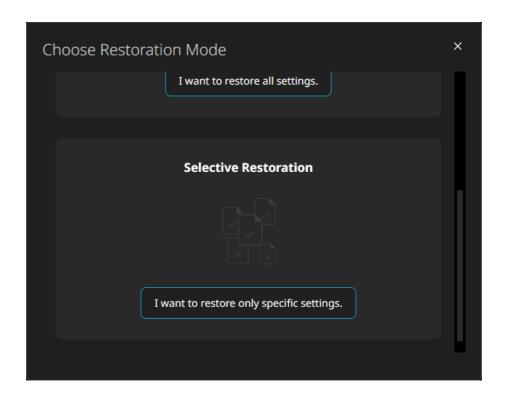


In the next step, choose if you want to *Use the IP address from the backup* or *Keep the current IP address*

Confirm & Restore - Starts the restoration process, which should only take a second.

Selective Restoration

I want to restore only specific settings. Choose if you would like to choose which settings to restore from the backup file.



In the next step, choose which settings to restore.

- Presets Restores the saved Preset. You can either choose Presets or Advanced.
 See menu »Presets
- Advanced Restores the saved Advanced Configuration. You can either choose Presets or Advanced.

See menu »Advanced

Network - Restores the Network settings. Choose if you want to Use the IP
 address from the backup or Keep the current IP address in the next step.

See menu »Network

• Ports - Restores the Port settings.

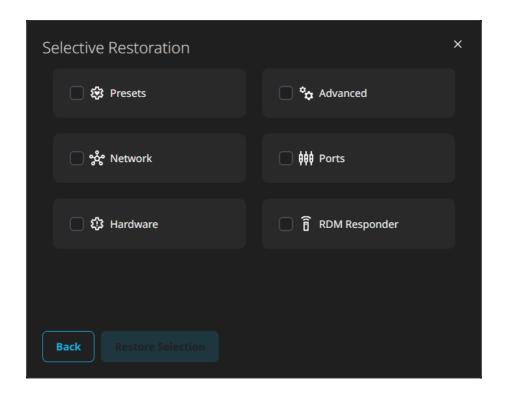
See menu »Ports

• Hardware - Restores the Hardware > General Settings.

See menu »Hardware

 RDM Responder - Restores the Hardware > RDM For Internal Sensor Data And Device Status > ArtRdm (Act As RDM Responder) settings.

See menu »Hardware



Restore Selection - Proceeds with the selected settings.

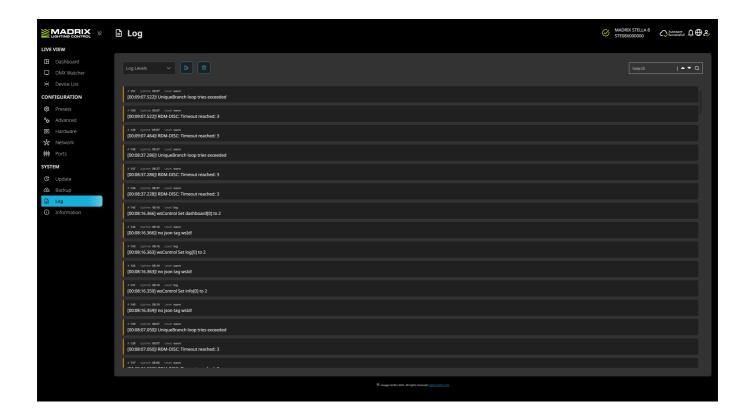
Confirm & Restore - Starts the restoration process, which should only take a second.

2.2.12 Log

This topic includes:

- Overview
- Log

Overview



Log

The Log keeps track of all warnings and system information. New entries will be added on top.

The Logfile might be requested by the MADRIX support team in case of support inquiries.

Log Levels

Defines which kind of information is shown and allows you to filter for:

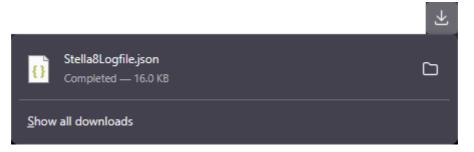
- Information
- Warning
- Error

Clear any filters via X



Download Logfile - Allows you to download the log as a separate file [in *.json format, named Stella8Logfile.json].

- All entries logged up to this point will be included.
- The download manager of your web browser should automatically take over and manage the download, including its stored location.





Delete All - Removes all current entries from the log.

Search

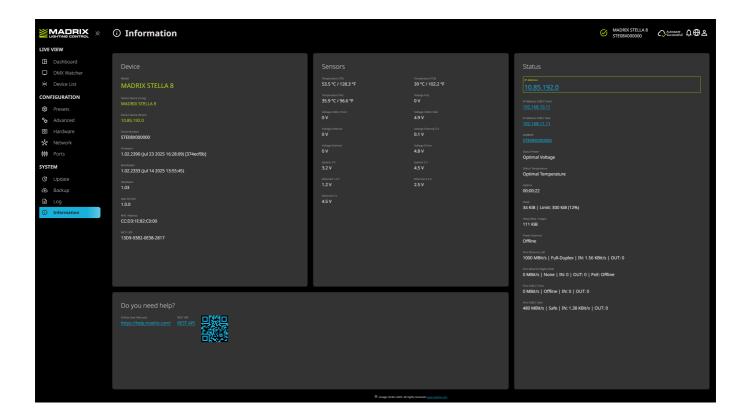
- Search Allows you to enter keywords or text you are looking for.
- Begins the search.
- W Allows you to jump to the next entry found in the list.
- ▶ Allows you to jump to the previous entry found in the list.
- X Clears any entered text and cancels the search.

2.2.13 Information

This topic includes:

- Overview
- Device
- Sensors
- Status
- Help

Overview



Device

Shows general information about the controller.

Model Shows the device type: MADRIX STELLA 8.

Device Name Shows the Art-Net Long Name; as set under menu » Hardware (Long)

Device Name Shows the Art-Net Short Name; as set under menu » Hardware (Short)

Serial Shows the unique production identifier.

Number 1 4 1

Firmware Shows the current firmware version, i.e. the customized software that runs on the

controller.

Bootloader Shows the current bootloader version, i.e. underlying software system that runs on the

controller.

Hardware Shows the hardware revision.

App Version Shows the version number of the web panel.

MAC Address Shows a permanent, unique address of the controller for network communication.

MCU UID Shows a permanent, unique identifier of the controller for its hardware components.

Sensors

These values of internal sensors of the controller can also be provided over ArtRdm. See »<u>Using RDM And MADRIX RADAR</u>

Values on this page are constantly being updated for you every 3 seconds.

These values might be requested by the MADRIX support team in case of support inquiries.

 $\textbf{\textit{Temperature}} \quad \text{Shows the current temperature of the main processor [in °C and °F]}.$

CPU

Temperature Shows the current temperature of the electrical circuit board [in °C and °F].

PCB

Temperature Shows the current temperature of components regarding Power over Ethernet [in °C and

PoE ° F].

Voltage PoE Shows the voltage currently provided by Power over Ethernet [in V].

Voltage USB- Shows the voltage currently provided by USB-C Front [in V].

C Front

Voltage USB- Shows the voltage currently provided by USB-C Side [in V].

C Side

Voltage Shows the voltage currently provided when connecting through a Power port [in V].

External

Voltage Shows the 5-V-voltage-marker currently provided when connecting through a Power port

External 5 V [in V].

Voltage Shows an internal-voltage marker [in V].

Internal

Voltage Shows an internal-voltage marker [in V].

Driver

System 3 V Shows the 3-V-systems-voltage marker [in V].

System 5 V Shows the 5-V-systems-voltage marker [in V].

Ethernet 1.2 Shows the 1.2-V-Ethernet-voltage marker [in V].

V

Ethernet 2.5 Shows the 2.5-V-Ethernet-voltage marker [in V].

V

Ethernet 5 V Shows the 5-V-Ethernet-voltage marker [in V].

Status

Shows specific information of the status of the controller, especially regarding power and communication. Values on this page are constantly being updated for you every 3 seconds.

The IP address that is currently being used for the communication to access the web panel of the controller is shown with a green outline.

IP Address Shows the current IP address regarding Ethernet network.

Can be used as a click-able link to call the controller with this IP address in the web

browser.

Is shown with a green outline if currently used to access the web panel.

IP Address Shows the fixed IP address of USB-C Front.

USB-C Front Can be used as a click-able link to call the controller with this IP address in the web

browser.

Is shown with a green outline if currently used to access the web panel.

IP Address Shows the fixed IP address of USB-C Side.

USB-C Side Can be used as a click-able link to call the controller with this IP address in the web

browser.

Is shown with a green outline if currently used to access the web panel.

NetBIOS Is an alternate way to call up the web panel or find the controller in the network, and

without using the IP address.

Can also be used as a click-able link to call the controller with its NetBIOS name.

[Main workflow: Assuming correct network settings, simply type http://SERIALNUMBER/into your web browser, such as http://STE08X000001/; often merely

STE08X000001/ should work. If you want to ping the device, use only **STE08X000001**]

Status Power Shows the status of the supply of power for the controller [Optimal Voltage, Voltage Too

Low, Voltage Too High].

Shows the status of the ambient temperature for the controller [Optimal Temperature,

Temperature Too Low, Temperature Too High].

Uptime Shows the time that has passed since the last power-cycle or restart.

Heap Shows an internal indicator of memory load [Current | Limit (Percentage)] [in KiB].

Heap (Max. Shows the most heap that has been used so far [in KiB].

Usage)

I eft

Front

Side

Power Shows the status of the power connection [Offline [Not Connected], Safe [Successfully External

Connected], Collapsed [Not Connected Anymore], Insufficient [Connected But Not

Enough Power], Voltage Too High [Overvoltage]].

Port Ethernet Shows details about the Ethernet Left port, including connection speed [in MBit/s], status

[Full-Duplex, Half-Duplex, None Connection], incoming data rate [IN], and outgoing

data rate [OUT].

Port Ethernet Shows details about the Ethernet Left port, including connection speed [in MBit/s], status

[Full-Duplex, Half-Duplex, None Connection], incoming data rate [IN], and outgoing Right (PoE)

data rate [OUT], Voltage Too High [Overvoltage].

Port USB-C Shows details about the USB-C Front port, including connection speed [in MBit/s], status

> [Offline [Not Connected], Safe [Successfully Connected], Collapsed [Not Connected Anymore], Insufficient [Connected But Not Enough Power], Voltage Too High

[Overvoltage]], incoming data rate [IN], and outgoing data rate [OUT].

Port USB-C Shows details about the USB-C Side port, including connection speed [in MBit/s], status

[Offline [Not Connected], Safe [Successfully Connected], Collapsed [Not Connected

Anymore], Insufficient [Connected But Not Enough Power], Voltage Too High

[Overvoltage]], incoming data rate [**IN**], and outgoing data rate [**OUT**].

Help

//84 www.madrix.com

Online User Manuals Provides a click-able link to the online help website of MADRIX for user manuals and

guides: »help.madrix.com

REST API Provides a click-able link to the offline help website of functions and commands used by

the web panel to communicate with the firmware of the device.

QR Code Provides a scan-able link to the online help website of MADRIX for user manuals and

guides: »help.madrix.com





//PART 3

RDM And MADRIX
RADAR

3 RDM And MADRIX RADAR

Topics Of This Chapter

Using RDM And MADRIX RADAR

3.1 Using RDM And MADRIX RADAR

This topic includes:

- Overview
- Settings
- MADRIX RADAR

Overview

The MADRIX STELLA 8 supports RDM in two ways.

It is both, an RDM Controller and an RDM Responder.

- **RDM Controller** MADRIX STELLA 8 transmits commands and requests to RDM Responders and back. This means that connected RDM devices receive instructions.
- **RDM Responder** The device acts on commands and replies to requests with its own status and sensor data via ArtRdm. This means that the device itself provides sensor data and information details over RDM.

Settings

RDM Controller

Overview

RDM is fully supported over Art-Net, including ArtRdm, all other required packets, and full and continued discovery of RDM devices.

Thanks to STELLA 8's Packet Multitasking, RDM and Art-Net can be sent and received at the same time and during live operation with a min. frame rate of 22 FPS, an expected average of 34 FPS, and a max. frame rate of 44 FPS, depending on the number of RDM packets.

Settings

Make sure that the following setting is enabled in the web panel of the device:

Ports > RDM

For each required port.

See menu »Ports

MADRIX RADAR Validation

MADRIX STELLA 8 unlocks all RDM devices [incl. sub-devices] connected to the STELLA 8 controller in the MADRIX RADAR Software for free!

This means they can be monitored and managed by MADRIX RADAR.

RDM Responder

Overview

That means that STELLA 8 itself can be monitored via RDM, for example in the MADRIX RADAR Software.

Settings

Make sure that the following setting is enabled in the web panel of the device:

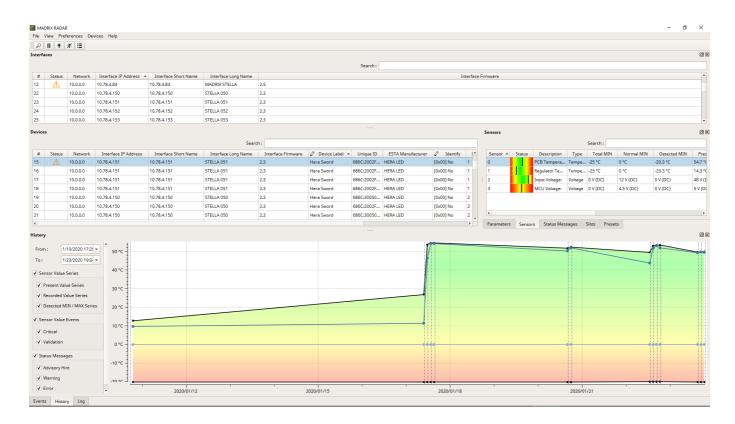
Hardware > RDM For Internal Sensor Data And Device Status > ArtRdm (Act As RDM Responder)
 See menu »Hardware

MADRIX RADAR

RDM Controller

Overview

RDM devices connected to MADRIX STELLA 8 can be monitored and configured in the MADRIX RADAR Software.



More Information

Learn more about MADRIX RADAR on the product website or user manuals. See »Web Links

RDM Responder

Overview

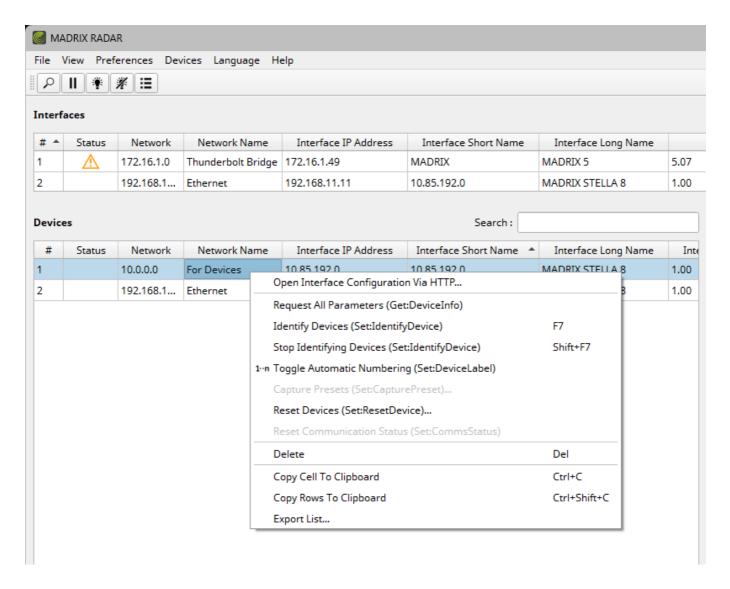
You can use software, like MADRIX RADAR, to use and monitor the RDM Responder functionality of MADRIX STELLA 8.

MADRIX RADAR version 1.4 is at least required.

Interfaces

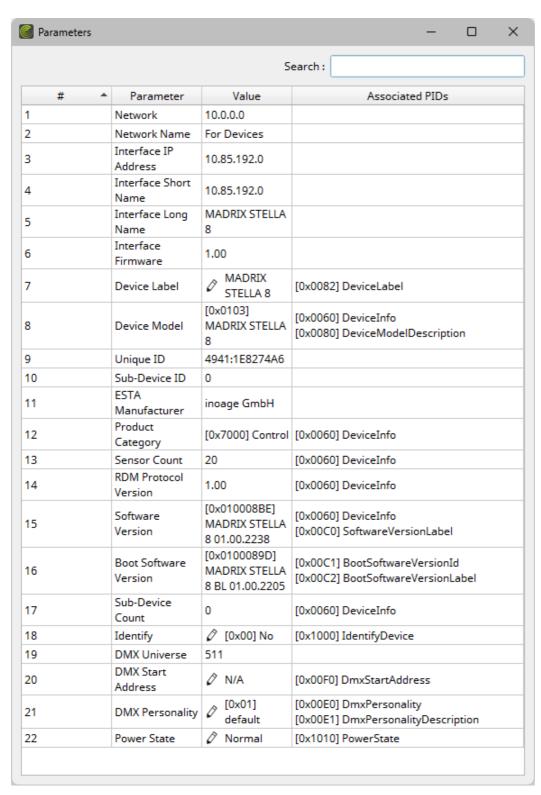
You can restart the device [Reboot System] over RDM via RDM command RESET_DEVICE.

- In MADRIX RADAR, select your unit from the list of Devices and perform a right-mouse click > Reset
 Devices (Set:ResetDevice)...
- 0x01 WarmStart and 0xFF ColdStart will reboot the system.



Parameters

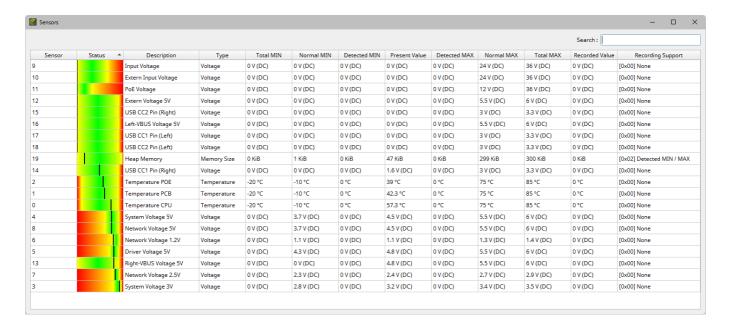
Parameters provide general information and identification details about the controller, as shown below.



 Power State - Get:PowerState reports Normal or Standby [in case Power Management is active and the DMX ports are disabled].

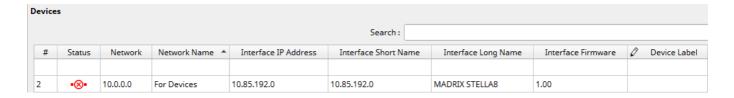
Sensors

MADRIX STELLA 8 provides sensor data about itself.



Device Lost

MADRIX RADAR also monitors if the connection to a controller has been lost.



More Information

Learn more about MADRIX RADAR on the product website or user manuals. See »Web Links



//PART 4
Technical Support

4 Technical Support

Topics Of This Chapter

Firmware Updates

4.1 Firmware Updates

This topic includes:

- Overview
- How To Update
- Available Firmware Updates

Overview

It is highly recommended to update the firmware should a new firmware version become available!

How To Update

- A] To update your devices, please use the separate MADRIX HARDWARE MANAGER Software.

 Learn more »MADRIX HARDWARE MANAGER [USB / Ethernet]
- **B]** Alternatively, you can upload the new firmware on the web panel of MADRIX STELLA 8 itself. Learn more under menu »Update

Available Firmware Updates

Sorted in descending order.

Latest Version	Highlights

[Part 4] Technical Support

STELLA 8 Firmware 1.02.2390	Initial firmware release.
STELLA 8 Bootloader 1.02.2390	
Release Date July 2025	



//PART 5
General

5 General

Topics Of This Chapter

- PC Power Management
- Tips [Microsoft Windows / Networks / USB]
- Web Links

5.1 PC Power Management

This topic includes:

- Why Is Power Management Important?
- Usage
- Activate High Performance
- How To Change USB Power Settings

Why Is Power Management Important?

We strongly recommend to deactivate all power saving options in Microsoft Windows in order to ensure an interruption-free operation of MADRIX 5.

Microsoft Windows operating systems offer a wide variety of power-management options. In most cases, laptops, notebooks, and netbooks benefit from a longer battery life if a good power management is in use. But certain problems might occur because of computer power savings nevertheless:

- After a while your MADRIX KEY cannot be identified by the software anymore.
- Your hardware interfaces are suddenly deactivated.

<u>Usage</u>

Make sure to set up power-saving settings especially if you are using:

- A MADRIX KEY [USB dongle]
- MIDI controllers [via USB]
- USB hardware interfaces [such as MADRIX STELLA 8]
- A notebook/laptop to run MADRIX 5

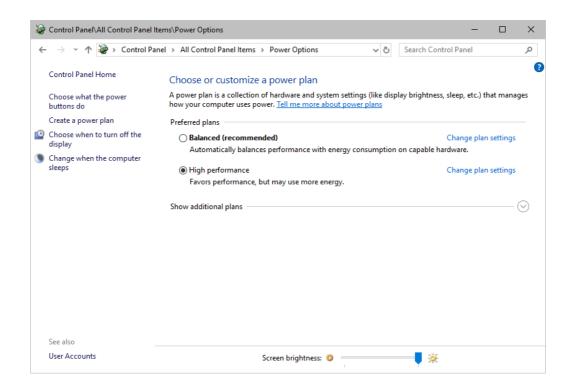
Additionally:

- Make sure to change the USB power settings.
- Especially for notebooks, we recommend to activate the High performance power plan.

Activate High Performance

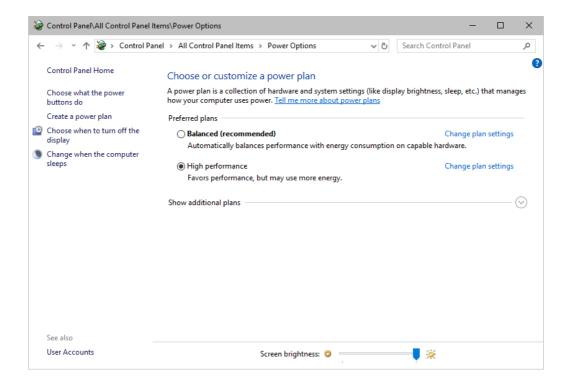
This setting will make sure that your notebook or laptop will have all its potential performance available for MADRIX 5.

In Windows 10, select Start > Windows System > Control Panel > Power Options, and change the power plan to High performance
 [You might need to click on Show additional plans].

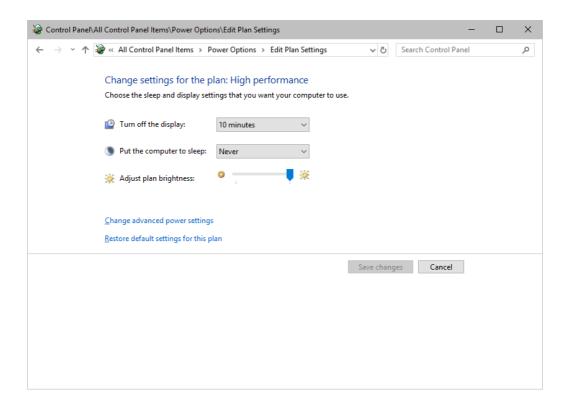


How To Change USB Power Settings

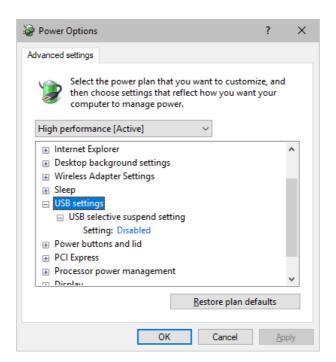
• In Windows 10, select Start > Windows System > Control Panel > Power Options > Change plan settings



Click Change advanced power settings



• Especially the *USB settings* are important. Disable the suspend settings!



• Change any other settings that might interrupt the operation as required.

5.2 Tips [Microsoft Windows / Networks / USB]

This topic includes:

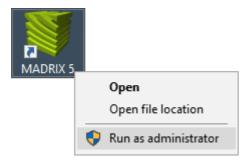
- Error When Saving Files
- USB
- The Windows Firewall
- Working With Ethernet Networks
- Changing The Priority Of Network Adapters
- **Working With Files**
- Operating System Security
- Up-To-Date Drivers
- Windows Restart / Shut Down
- Monitoring Computer Performance

Error When Saving Files

If you are experiencing issues when trying to save files, there are two solutions to this problem:

Right Click > Run as administrator

- In order to save files as a user that is logged-in into Windows, you need to have the permissions set by Windows to do so.
- When you do not have the right permissions, saving files can lead to errors.
- To circumvent such issues, you can run the MADRIX Software as administrative computer user, the so-called administrator.
- Perform a *right mouse click* on the *MADRIX.exe* [or a shortcut to the MADRIX 5 Software] and choose *Run as administrator*
- **Note:** You need to have access to the administrator account (i.e., password). Logging in as administrator grants extensive rights for any computer changes. If you are not familiar with Windows or computers, please seek advice.



Choose A Different Directory

- When you are experiencing issues and running as administrator is not an option, choose a different directory on your harddisk to save the files.
- There are locations on your computer/harddisk where you will have the permission to save files. Choose such a location.
- Examples are:
- C:\Users\USERNAME\Desktop
- *C:\Users\USERNAME\Documents*

[USERNAME specifies your Windows account name.]

USB

Among others, USB is an important way to work with MADRIX 5, MADRIX KEYs, MADRIX hardware interfaces, MIDI controllers, etc. In order to ensure a stable work environment, we highly recommend setting up corresponding USB settings in Windows.

Learn more »PC Power Management

The Windows Firewall

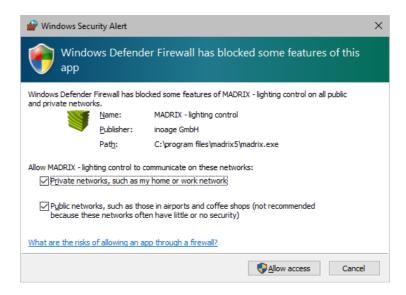
Correct Settings

The primary purpose for the Windows Firewall [or any other firewall] is to block any unwanted incoming or outgoing data and access. But this can lead to problems, when data that should go through is

automatically blocked.

MADRIX 5 will automatically set the correct firewall settings for you during the installation process.

Please follow the steps below if this Windows message appears when you start the MADRIX 5 Software for the first time.



Select and set a checkmark for

Private networks

and

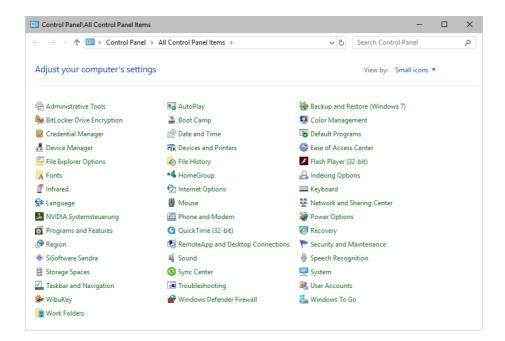
- Public networks
- Click Allow access to confirm.

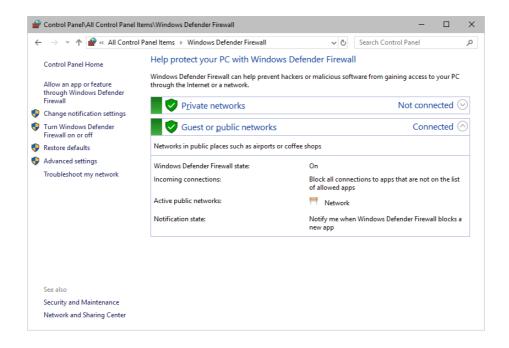
Not selecting both options can cause problems with network communication.

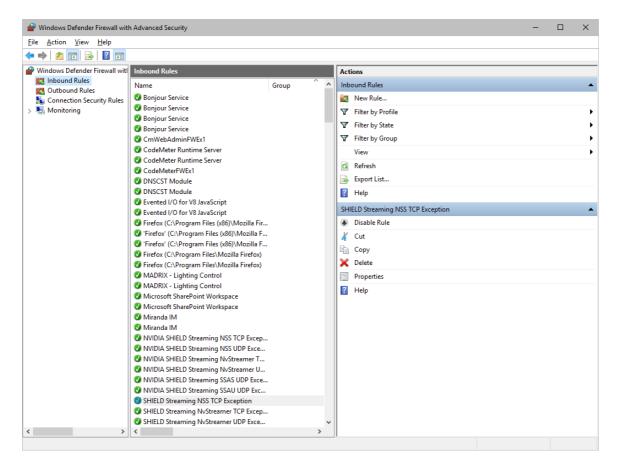
Resetting The Settings

If you have already chosen the wrong options MADRIX 5, you can delete the settings and choose again.

In Windows 10, go to Start > Windows System > Control Panel > Windows Defender Firewall >
 Advanced settings > Inbound Rules







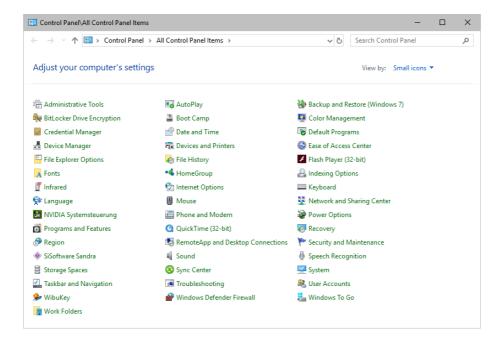
- Select and delete any entries relating to MADRIX 5 [e.g., madrix.exe, MADRIX music makes the light, MADRIX - LIGHTING CONTROL].
- With your next start of MADRIX 5, select both options as described above.

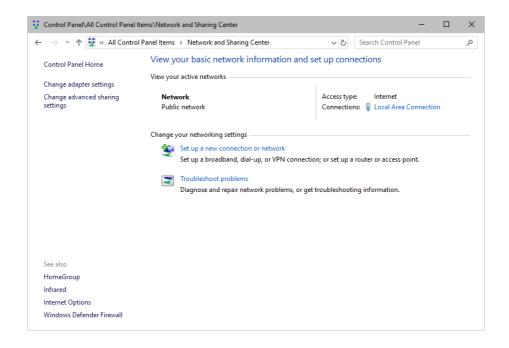
Working With Ethernet Networks

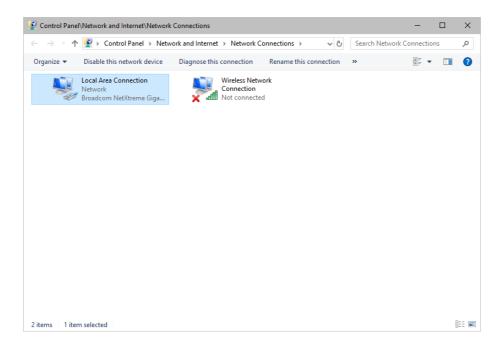
Configuration Of Network Settings

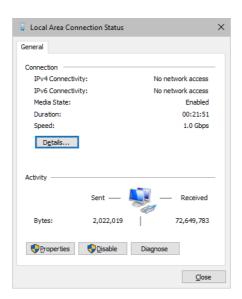
When working with network-based products and MADRIX 5 [for example, Art-Net, KiNET, sACN, etc.], you will have to set up the IP address of your network card in Windows. Learn how to set it up here.

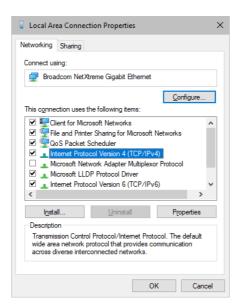
In Windows 10, go to Start > Windows System > Control Panel > Network and Sharing Center >
 Change adapter settings > Local Area Connection > Properties > Internet Protocol Version 4
 (TCP/IPv4) > Properties

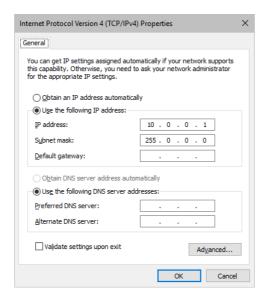












Set up the following settings:

- Enable Use the following IP address:
- IP address Sets the IP address for this computer and this network card.
 - If you have several network cars in your computer, you can set up an individual address for each network card.
 - An IP address has 4 parts. Enter the complete address as explained in the specific chapter of this user guide [e.g., 10.0.0.1].
 - You only have to enter the numbers.
- Subnet mask Sets up the Subnet mask for this computer.
 - This is an important part of the network settings, just as the IP address.
 - A Subnet mask has 4 parts. Enter the complete address as explained in the specific chapter of this

user guide [e.g., 255.0.0.0].

- You only have to enter the numbers.
- **OK** Click to save your settings.
 - [Make also sure to close the **Local Area Connection Settings** with **OK** and close the **Local Area Connection Status** window with **Close**.]
- Restart the MADRIX 5 Software if you have changed any network settings!

Learn more below.

Using Several Devices In A Network

Usually, you will use at least 2 devices in a network [for example, 1 MADRIX PC and 1 Art-Net node or 1 MADRIX PC and 1 console]. As explained above, you will need to configure various network settings not only for your MADRIX PC but also for the other devices.

To be able to communicate with each other, all devices have to be in "the same network". That means:

- All devices need to be physically connected with each other [through network equipment, such as hubs or switch and/or network cables]
- All devices need to have compatible network settings

Using several devices in a network does not mean that all should have the same IP address. That will not work!

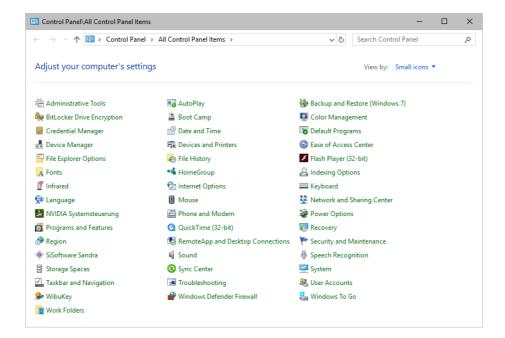
Instead, follow these rules:

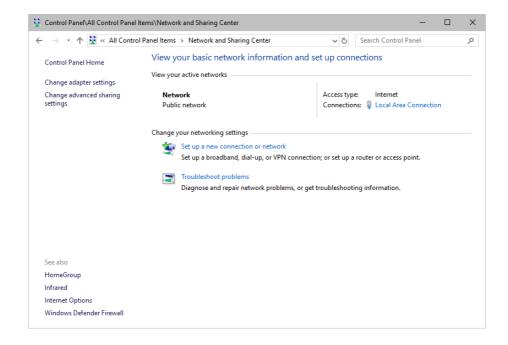
- Set up all devices within the same IP address range, but never with the same IP address
 [for example, MADRIX PC: 10.204.226.101 and Art-Net node: 10.204.226.102]
- Set up all devices with the same Subnet mask e.g., 255.0.0.0]
- If recommended, set up all devices with the same Default gateway [e.g., 10.0.0.1]

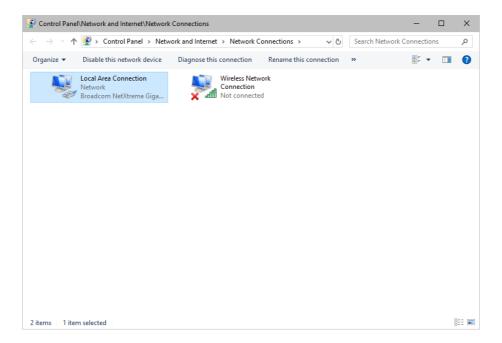
Changing The Priority Of Network Adapters

You can change the order in which Windows and MADRIX 5 accesses your network adapters. By changing the order, you can specify which network adapter [network card] is used first and as the main connection.

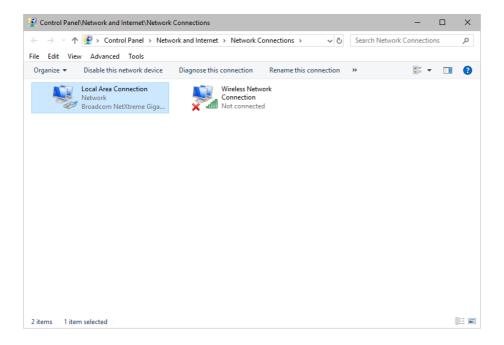
1] In Windows 10, go to Start > Windows System > Control Panel > Network and Sharing Center
 Change adapter settings



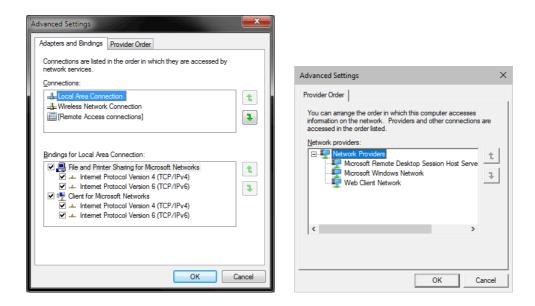




- 2] Press *Alt* on your keyboard.
 - A menu appears at the top, which is otherwise hidden.



- 3] Go to Advanced > Advanced Settings...
 - A new window opens.



- 4] Select your preferred network connection[s] in the list of *Connections:*
- 5] Change the order by clicking on the *green up and down arrow buttons* on the right hand side.
 - The connection which is listed on top, is the first and prioritized adapter.
- 6] Click OK to confirm.
- 7] Restart your computer.

Working With Files

When working with computers in general, you should be aware that any digital data is sensitive and prone to failure and hardware errors.

We recommend

- to save regularly when creating a show in MADRIX 5.
- to make backup copies of your show files from time to time [MADRIX 5 Setup files]
- to make backup copies to different or external storage mediums [e.g., USB stick/thumbdrive].

Operating System Security

It is recommended

- to keep Windows up-to-date by installing security updates using Windows Update
- to use a virus detection software when working with files from external sources.

Up-To-Date Drivers

Please always keep all component drivers up to date by installing the latest available driver. Among others, this may include drivers for:

- Processor
- Graphics Card
- USB
- Capture Card
- Sound/Audio Card
- Video Codecs

Windows Restart / Shut Down

According to the requirements of Windows, MADRIX 5 will behave in the following way:

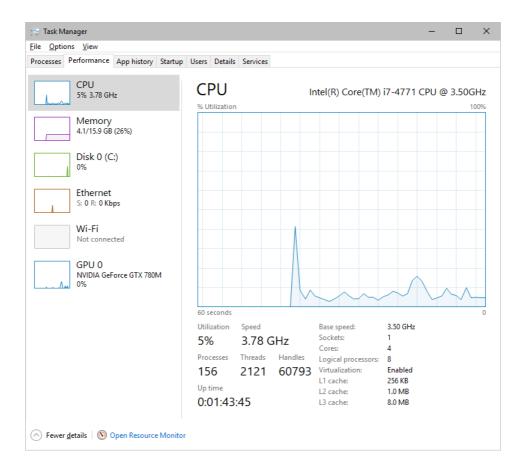
- MADRIX 5 will be closed instantly, when you trigger a Restart or Shut Down of Windows.
- If you have not saved any changes yet, you may be provided the chance and a short time frame [30 seconds] to react and save your progress before the MADRIX 5 Software is forcefully closed by Windows itself.
- Make sure to save your files before executing a Restart or Shut Down!

Monitoring Computer Performance

Windows allows you to monitor the overall performance of your computer.

Press Ctrl + Alt + Del and choose Start Task Manager
 [German shortcut: Strg + Alt + Entf]

- A new window opens [Task Manager].
- Go to **Performance**



- You can now monitor the CPU Usage as well as the Memory usage.
- MADRIX 5 has its own monitoring tools.

5.3 Web Links

This topic includes:

Overview

Overview

You can find a selection of useful internet links here:

- MADRIX Website
 - »www.madrix.com
- Drivers / Downloads
 - »www.madrix.com/support/download
- User Guides [Online And Downloadable PDF]
 - »help.madrix.com
- Hardware Technical Manuals / Quick Start Guides [Downloadable PDF]
 - »help.madrix.com
- Online Forum
 - »www.madrix.com/support/forum
- Software Release Notes / Hardware Release Notes
 - »www.madrix.com/products/software/releases
- Online Text Tutorials
 - »help.madrix.com/tutorials/html/index.html
- Video Tutorials
 - »https://www.madrix.com/training/video-tutorials



//PART 6
Legal

6 Legal

This topic includes:

- Introduction
- Topics Of This Chapter

Introduction

Legal includes all legal documents and information, including copyright and more.

Topics Of This Chapter

- Imprint And Copyright

6.1 Imprint And Copyright

This topic includes:

- Company And Address
- Copyright
- Credits

Company And Address



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