Directout USB.IO Powered By RME Module User Guide

Contents

DirectOut TECHNOLOGIES

Directout USB.IO Powered By RME Module

Specifications

- Product Name: DirectOut USB.IO
- Compatibility: macOS 10.15 and higher, Windows
- Driver Types: Driver Kit, Kernel Extension
- Driver Download Link: **https://rme-audio.de/downloads.html**

Product Usage Instructions

Installation on macOS – Driver Kit:

1. Download the driver from the provided link, select the product ‘USB.IO’, specify the operating system, and choose the driver file.
2. Connect the USB.IO device to your computer.
3. Launch the installer package.
4. Follow the on-screen instructions. If prompted that the new extension is blocked, go to System Settings `Privacy and Security’ and click ‘Allow’.

Installation on macOS – Kernel Extension:

1. Change System Security Settings using Startup Security Utility.
2. Boot the M1 or higher computer in Recovery mode.

Class Compliant Mode:

In class-compliant mode, the USB.IO operates without requiring additional drivers on supported systems. Simply connect the device to start using it.

Firmware Update:

To update the firmware of the USB.IO, refer to the user manual available at the provided link.

Clocking:

For information on clocking options and settings, consult the user manual.

FAQ

- **Q: What should I do if the driver installation fails?**
  - A: If you encounter issues during driver installation, ensure your system meets the minimum requirements and try reinstalling the driver following the provided instructions.
- **Q: Can I use the USB.IO without installing any drivers?**
  - A: Yes, the USB.IO can operate in class-compliant mode unsupported systems without the need for additional drivers.

Quickstart USB.IO

This document informs about the driver installation and the basic operation of theDirectOut USB.IO. For more detailed information please consult the user manual available at **https://www.directout.eu/product/usb-io/**

Installation macOS – Driver

This chapter informs about the installation of the USB driver for the USB.IO on macOS.

There are two methods to install the driver:

- Driver Extension (DEXT) aka Driver Kit (DK)
- Kernel Extension (KEXT)

The use of Driver Extensions is recommended by Apple since macOS 10.15 and higher. The installation of Kernel Extensions requires additional steps on M processors during installation due to the strict system security policy of macOS. By design, kernel extensions may be more performant. It's beyond the scope of this document to list the differences between Driver Kit and Kernel Extension. Both methods are supposed to offer best user experience. However it might happen depending on the circumstances that one is superior to the other.

For more information please refer to:
https://rme-audio.de/driverkit-vs-kernel-extension.html

Installation macOS – Driver Kit

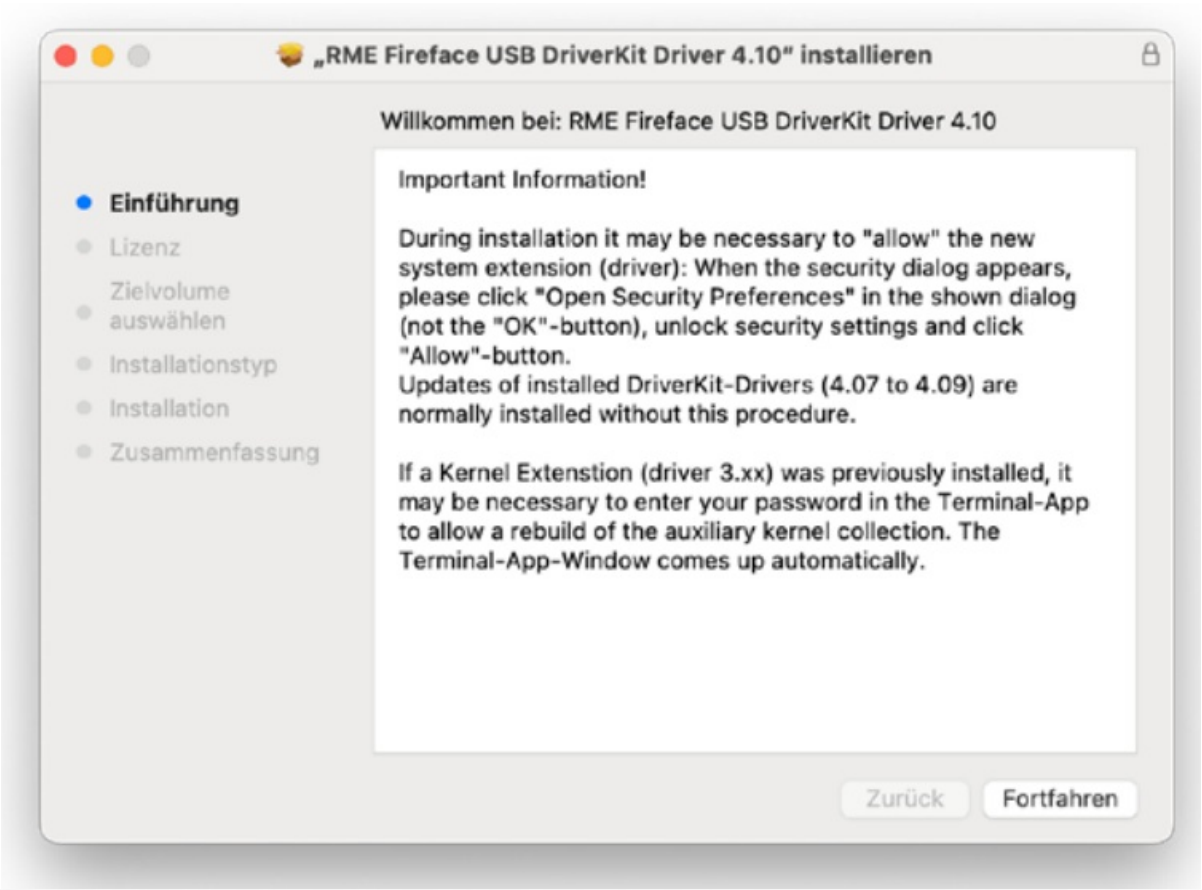
This chapter informs about the installation of the USB driver (Driver Kit) for theUSB.IO on macOS.

System Requirements

- macOS 11 or higher, Apple Silicon (M processor), Intel
- USB 3.0 or 2.0 port
- USB-C cable
- Administrative privileges

The Driver Kit installs the driver extension (DEXT) to the operating system.

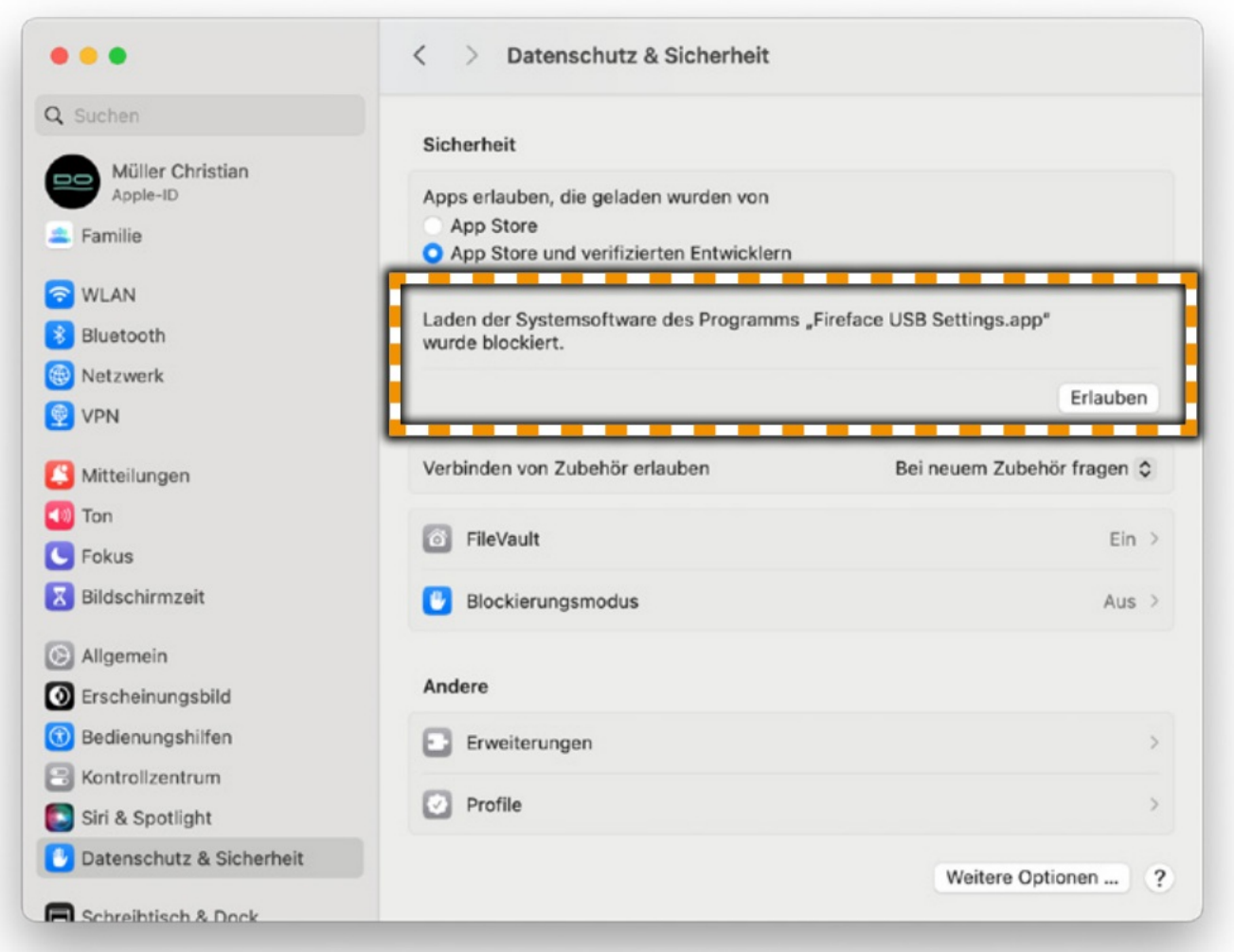
1. Download the driver from **https://rme-audio.de/downloads.html** Select product ‘USB.IO’, specify the operating system, select ‘Driver’, select file ‘driver_usbdk_mac_<xx>.zip’
2. Connect the USB.IO with your computer
3. Launch the installer package



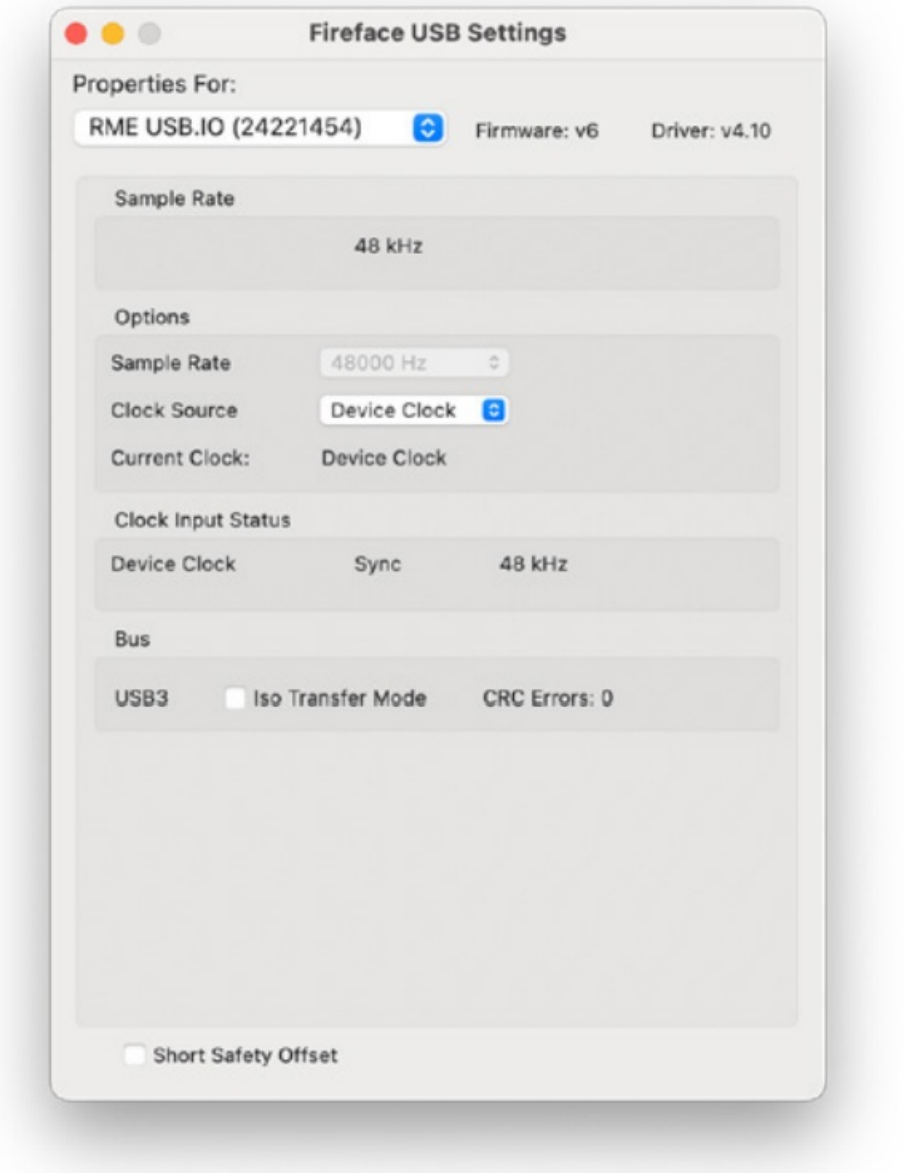
4. After the installation of the Driver Kit package you will be prompted by the system that the new extension has

been blocked. Open the System Settings ‘Privacy and Security’.

5. Click ‘Allow’ (E) or ‘Erlauben’ (D) both times



6. The driver dialog will open



Installation macOS – Kernel Extension

This document informs about the installation of the USB driver (Kernel Extension) for the USB.IO on macOS.

System Requirements

- macOS 11 or higher, Apple Silicon (M processor), Intel

- USB 3.0 or 2.0 port
- USB-C cable
- Administrative privileges

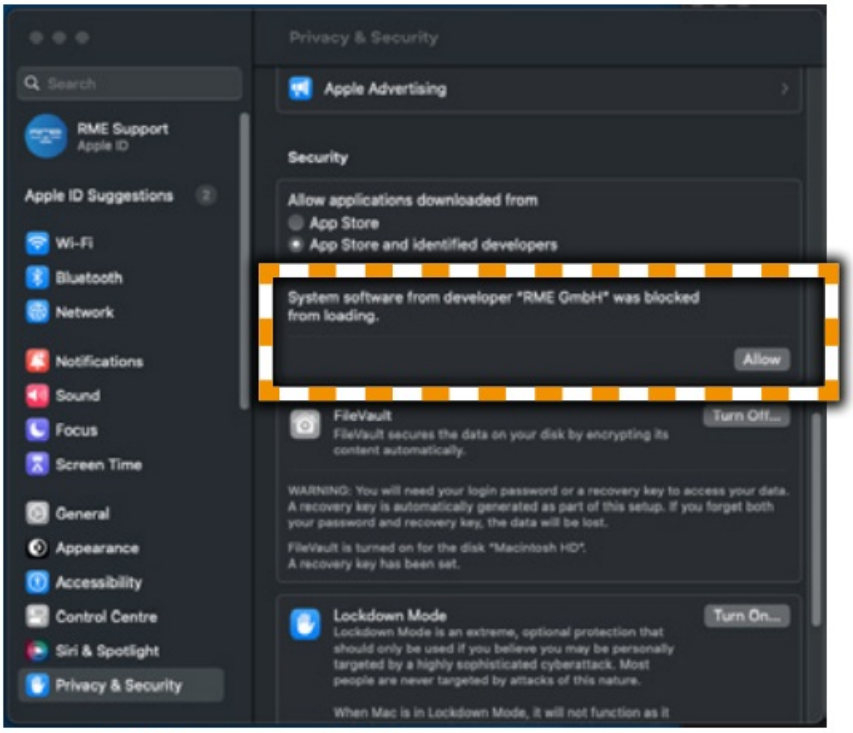
The driver is installed as kernel extension (KEXT) to the operating system.

1. Change System Security Settings using Startup Security Utility
    - Boot the M1 or up computer in Recovery mode (turn it on with the power button pressed until the screen shows the startup options are loaded)
    - Select Options, then your language
    - In the top menu go to Utilities -> Startup Security Utility. Select the system where the RME drivers will be installed
    - Continue with -> Security Policy
    - Select Reduced Security -> Allow user management of kernel extensions from identified developers
    - Reboot you computer

NOTE

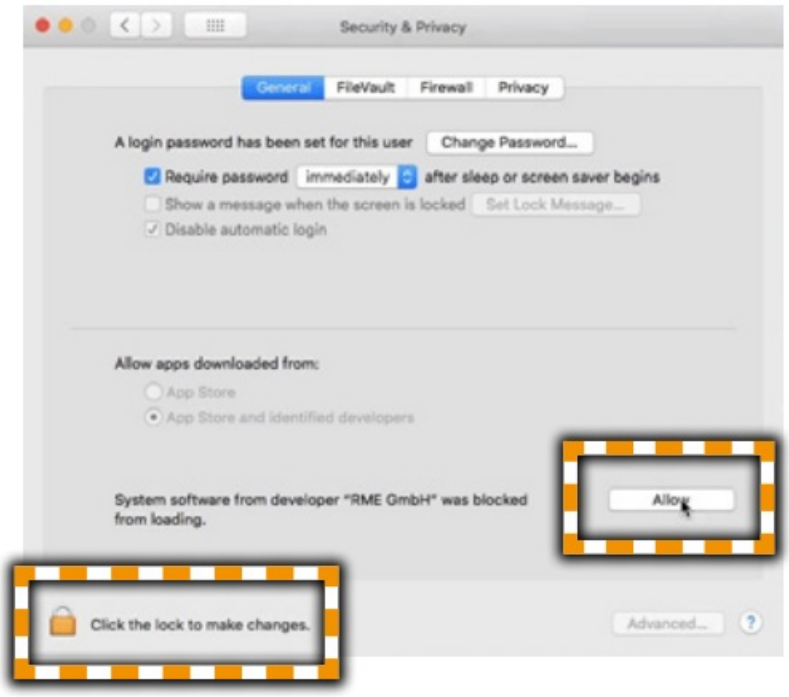
To install the kernel extension on a Mac with Intel processor step 1 is not required.

2. Download the driver from **https://rme-audio.de/downloads.html** Select product 'USB.IO', specify the operating system, select 'Driver', select file 'driver_usb_mac_<xx>.zip'
3. Connect the USB.IO with your computer
4. Launch the installer package
5. Before the reboot for finishing the driver installation:
   Open 'System Preferences, Security & Privacy', tab General



macOS Ventura (13)

Click the lock symbol to unlock, then confirm using the RME GmbH kernel extension.



macOS Big Sur (11) & Monterey (12)

6. Reboot the computer to complete the installation.
   For more information please refer to:
   https://rme-audio.de/rme-macos.html

Installation Windows – Driver

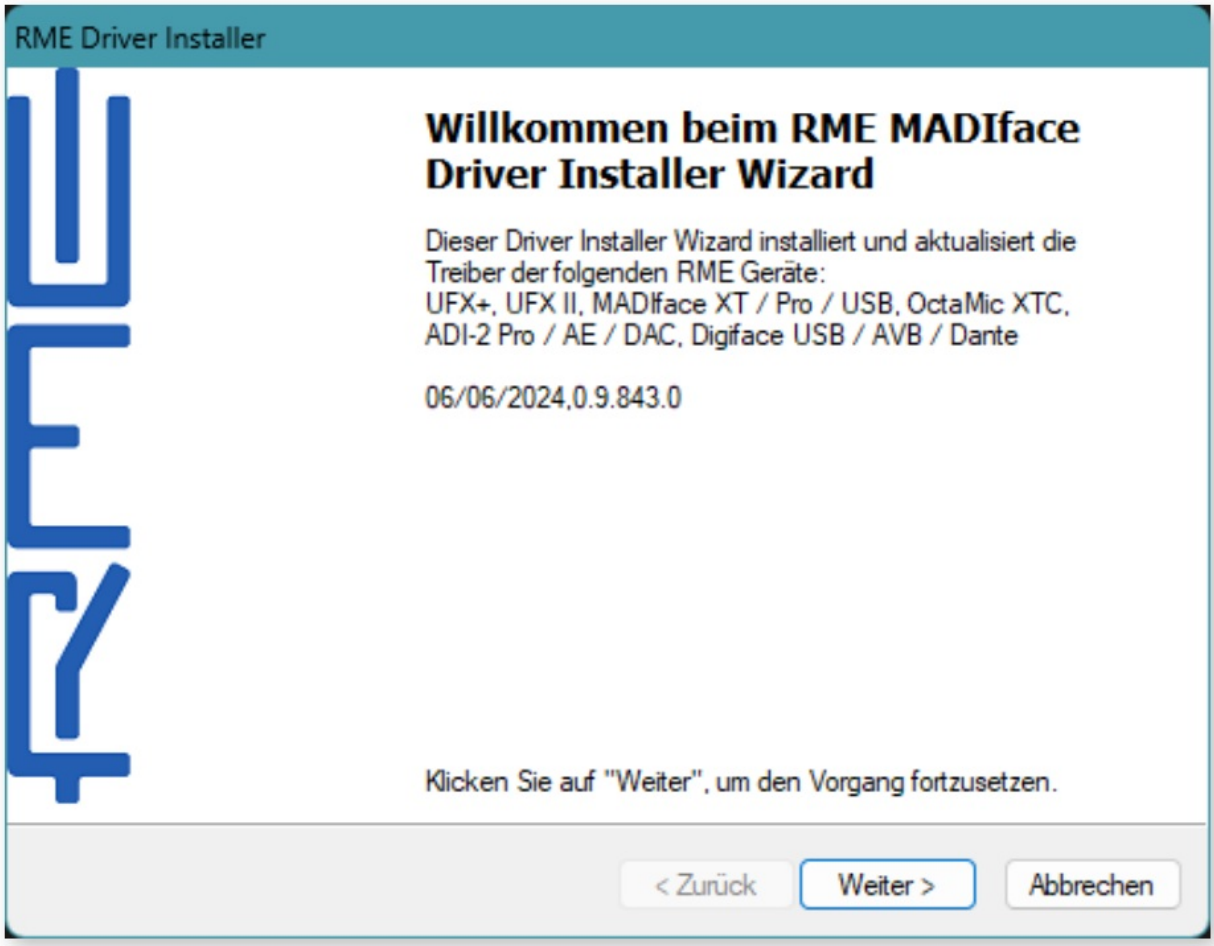
This document informs about the installation of the USB driver for the DirectOut USB.IO on Windows.

System Requirements

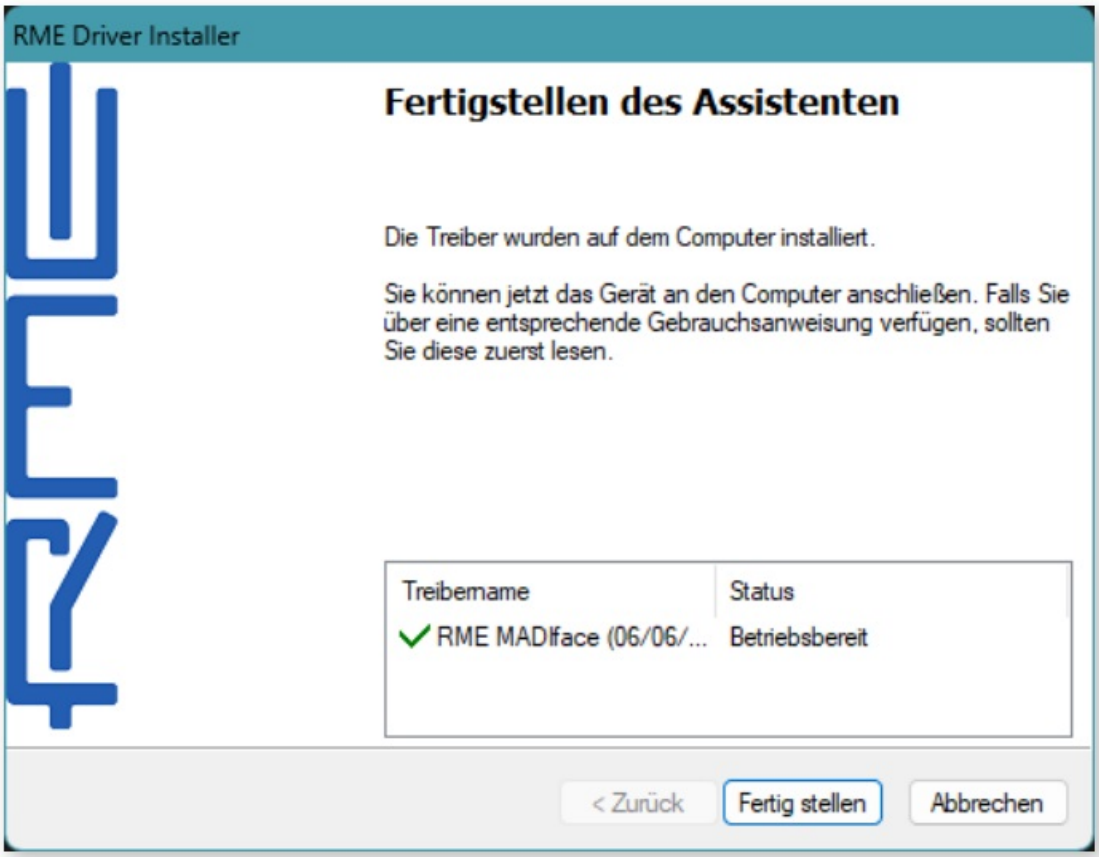
- Windows 10 or higher
- USB 3.0 or 2.0 port
- USB-C cable
- Administrative privileges

The RME MADIface Driver Installer Wizard installs the USB driver to the operating system.

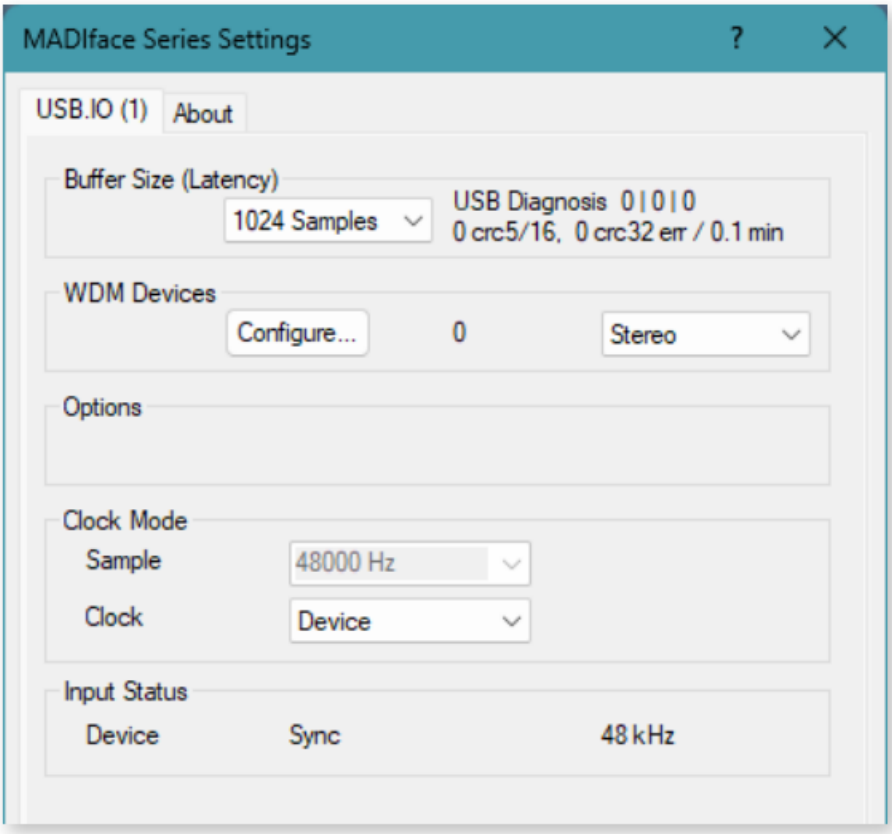
1. Download the driver from **https://rme-audio.de/downloads.html** Select product ‘USB.IO’, specify the operating system, select ‘Driver’, select file ‘driver_madiface_win_<xx>.zip’.
2. Connect the USB.IO to your computer
3. Launch the installer package and follow the instructions



4. After the installation of the RME Driver Installer, you need to restart the computer.



5. Driver dialog



Class compliant / LED codes

Operating the USB.IO in class-compliant mode (CC Mode) does not require an installed RME driver.

There are good reasons to use the RME driver:

- TotalMix software is installed with the driver and can not be used in CC Mode.
- RME driver is highly tuned to the hardware and offers better performance than the class-compliant version of the operating systems.
- On Windows, many DAWs require ASIO driver, which is not available for the CC driver.

When to use CC Mode?

Class-compliant mode is interesting for systems where the use of the RME driver is not possible – e.g. on Linux or mobile devices (tablets).

How to use CC Mode?

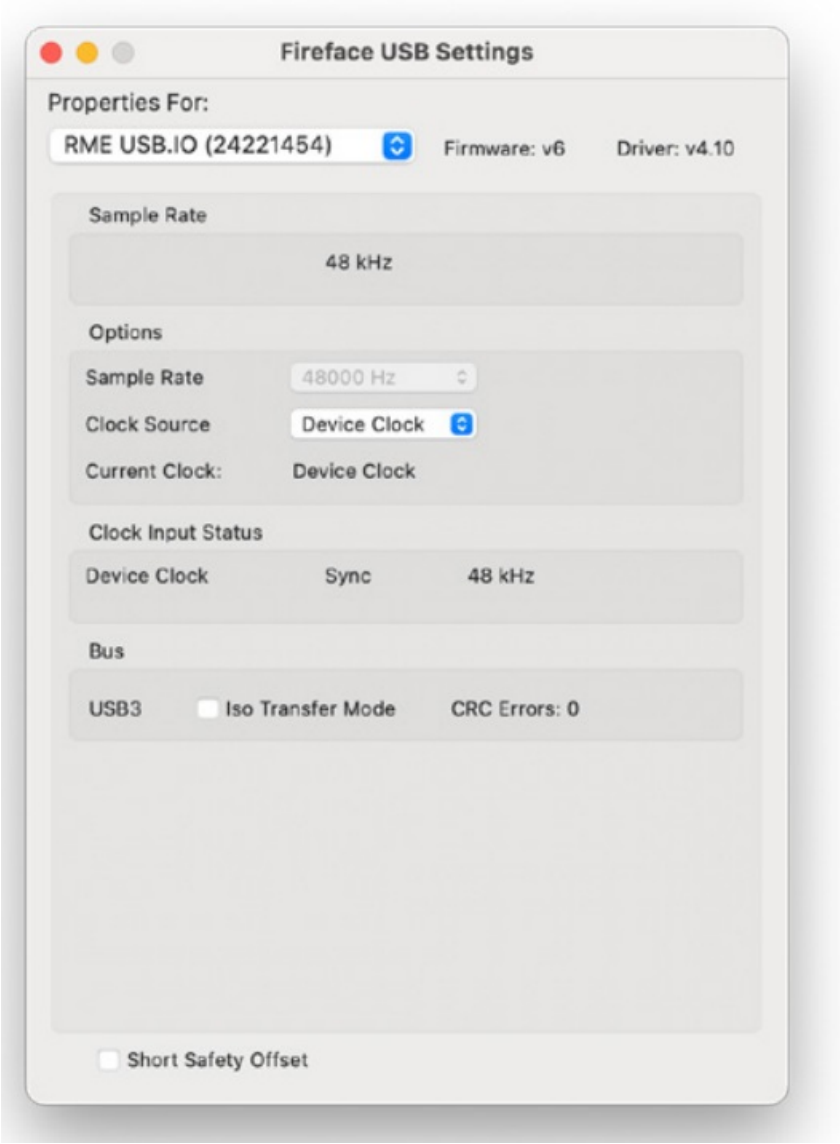
CC mode is activated on the hardware: Press the blue push button on the USB.IO to toggle the modes

CC MODE Push Button	**Push button** Press to toggle operating mode. Restart of the module or dis- / reconnect of the USB connection is required after change.
CC MODE LED	**LED orange - indicates operation mode** (OFF) = CC mode OFF (ON, orange) = CC mode ON
USB Socket	**USB-C socket for audio transmission** Connect with USB 3.0 or 2.0 port
USB 2/3 LED	**LED RGB - indicates USB connection** (ON, blue) = USB 3.0 (128 channels) (ON, yellow) = USB 2.0 (64 channels) (ON, red) = no USB connection

Clocking

Driver Mode

The module can be clocked by the host device or internally via the driver settings



Sample Rate	**Display of currently active sample rate.**
Options Sample Rate	**Sets the current sample rate.** Values: 44.1 / 48 / 88.2 / 96 / 176.4 / 192 kHz Active, when clock source is set t o USB Interface.
Options Clock Source	**Sets the clock source.** Device clock = host device (PRODIGY, MAVEN) USB Interface = internal clock of USB.IO
Options Current Clock	**Display of currently used clock source.** Values: Device Clock / USB Interface
Clock Input Status Device Clock	**Display of current clock state and sample rate.** no lock = no signal at USB.IO lock = signal present at USB.IO, but not in sync with host device sync = signal present and in sync with host device

NOTE

The driver setting is not available when the module is running in class-compliant mode. See “Class Compliant Mode”

Class Compliant Mode

The clock source of the module is selected automatically based on the settings of the host device.

Host device **clock source set to:**	**Clock source USB.IO**
USB.IO (NET)	internal clock, sample rate is set via the class-compliant USB aud io driver
any other clock source	USB.IO is clocked by host device*

the sample rates of host device and connected USB device must match.

NOTE

For more detailed information please refer to the user manual available at
https://www.directout.eu/product/usb-io/

NOTE

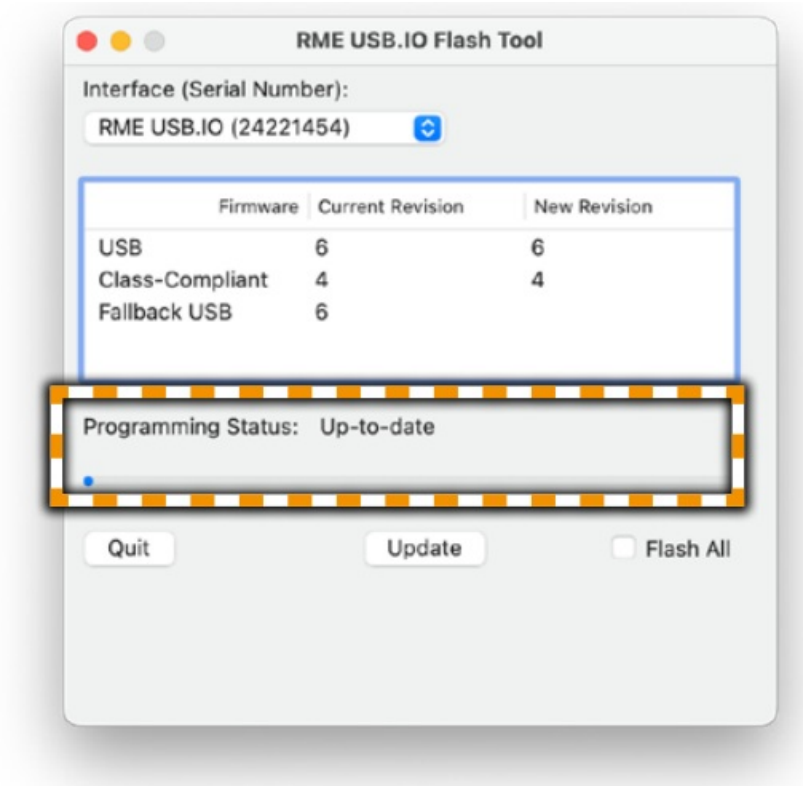
- Windows operating system – current restrictions:
- USB 2 Class Compliant mode is not fully compatible to Windows 11
- USB 3 Class Compliant mode not supported by Windows at all

Firmware Update

The firmware of the module is updated via the Flash Update Tool from RME.

It is recommended to operate the module with the latest firmware version.

1. Download the Flash Update Tool from **https://rme-audio.de/downloads.html** Select product ‘USB.IO’, specify the operating system, select ‘Flash Update’,select file ‘fut_madiface_win.zip’ (Windows) or ‘fut_madiface_mac.zip’ (macOS).
2. Start the ‘RME USB.IO Flash Tool’



The programming status is displayed: ‘Update’ if the status is ‘Not updated’. ‘Quit’ if the status is ‘Up-to-date’

NOTE

To update the USB.IO, an installed driver must be present on the operating system.

Documents / Resources

	Directout USB.IO Powered By RME Module [pdf] User Guide USB.IO Powered By RME Module, USB.IO, Powered By RME Module, RME Module, Module

References

- RME Audio | DriverKit vs Kernel Extension Guide - RME Audio Interfaces | Format Converters | Preamps | Network Audio & MADI Solutions
- Install the latest driver for your RME audio interface under macOS - RME Audio Interfaces | Format Converters | Preamps | Network Audio & MADI Solutions
- User Manual