## Sierra and High Sierra Low Latency Driver Installation

To Install the Low Latency driver the existing AppleUSBFTDI.kext driver must be disabled. On Sierra and High Sierra this requires the System Integrity Protection to be temporarily disabled

## System Integrity Protection in MacOS Sierra

There are 2 issues with MacOS Sierra and possibly macOS El Capitan in the documented method to disable the AppleUSBFTDI.kext in order to let the maclow2p3 load.

- AppleUSBFTDI.kext is located in a different folder
- The macOS needs the System Integrity Protection to be disabled first before renaming kexts

1) Disable SIP

- Restart the Mac on the recovery session (CMD+R depressed during start-up)
- Open Terminal
- Type "csr disable" or "csrutil disable" depending on the exact version of MacOS and validate
- You should see a warning message saying that you are disabling System Integrity Protection
- Restart Normally
- 2) Deactivate the AppleUSBFTDI.kext
  - Open Terminal (Be sure to be logged as an administrator account of MacOS)
  - Type "cd /System/Library/Extensions"
  - Disable the Mac driver "sudo mv AppleUSBFTDI.kext AppleUSBFTDI.disabled"
  - Type Enter and password to validate
  - Type "Is" to show the contents of the directory and verify that the AppleUSBFTDI.kext is renamed as AppleUSBFTDI.disabled
- 3) To Reactivate SIP
  - Restart the Mac on the recovery session (CMD+R depressed during start-up)
  - Open Terminal
  - Type "csr enable" or "csrutil enable" depending on the exact version of MacOS and validate
  - Terminal should warn you that you are enabling System Integrity Protection
  - Restart Normally

4) Verify that the maclow2p3 is loading and that AppleUSBFTDI is not as follows:-

- Open System Information of macOS Apple Menu/About this Mac/More Info/system report/Software/Extensions
- AppleUSBFTDI should not be present
- maclow2p3 should be present AND loaded (if a USB422 is connected).

That's it!

Please note that Apple OS big updates could reactivate the AppleUSBFTDI.kext. It's then important to verify that it stays disabled after any major OS upgrade.

Thanks to Jonathan Martins for the concise information above!

## **High Sierra**

Performance wise the driver performs the same on High Sierra as it does on Sierra. Tested with ProTools release 2018.3 and with the latest ProTools beta release.

Installation wise, there is just this one Apple issue that everybody (including Avid, Adobe...) fall into (see picture). All you can do is go to your system preferences and hitting Allow and sometimes you need to repeat the driver installation

Thanks to Alicja Golianek, Avid Audio QA Team Leader

