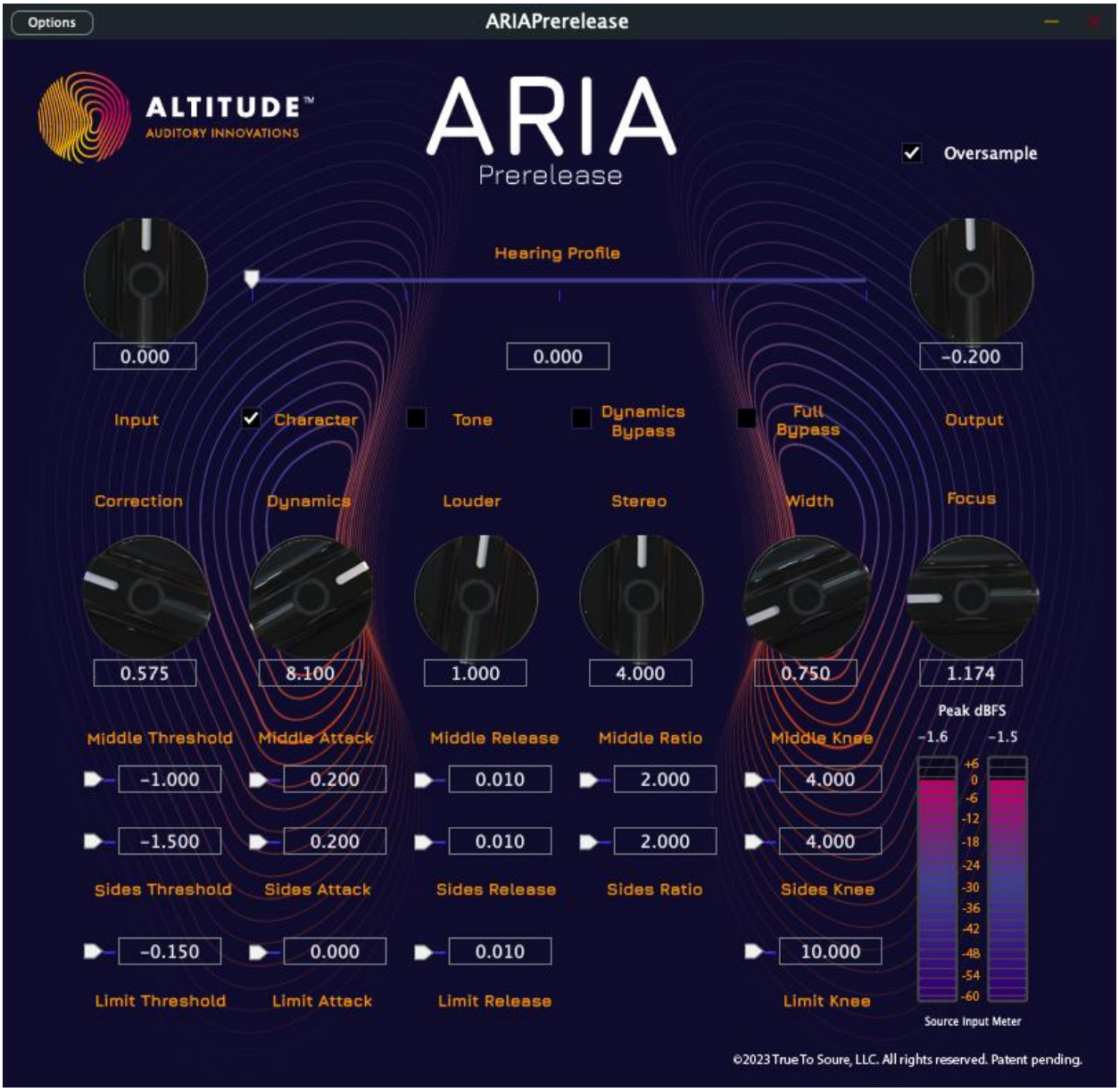
ARIA Prerelease
User Manual
v1.0.1



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I. Installation—Primary Method

Begin the installation process by downloading either the Arm64 or x86 installer package for Apple Silicon macs and Intel-based macs, respectively. Pick the package matching the CPU architecture of your machine.

Unpack the downloaded .zip file, open the installer package, review the Terms and Conditions, and complete the steps directed by the installer application.

II. ARIA Install and Resource Locations

ARIA's install process includes two applications, preset files in varied forms, preset libraries for Reaper, state presets for the standalone application, and AudioHijack templates. Here is where you have installed each resource and where you can find it again for use:

1. **ARIAPrerelease Standalone Application (and AUv3):** Located in your Applications folder.

2. **ARIAPrerelease Standalone State Presets**: Located in your Music folder within the ARIA Resources folder.
   NOTE: Use the ARIA User Resources folder within your Music folder when saving new states.

3. **ARIAPrerelease VST3 Plugin:** The location pathway is:
   /Library/Audio/Plug-Ins/VST3

4. **ARIAPrerelease AUv3 & VST3 Plugin Presets:** The location pathway is:
   /Library/Audio/Presets/Altitude

5. **ARIAPrerelease AUv3 & VST3 Preset Libraries for Reaper:** Located in your MJusic folder at :
   ~/Music/ARIA Resources/PresetLibs_Templates

6. **AudioHijack Template(s):** Located in your Music folder at:
   ~/Music/PresetLibs_Templates/Audio Hijack Templates

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III. Key Points of Advice

1. **Gain Staging:** Do NOT clip the input from your streaming source. Seriously, leave at least a few dB of headroom (or more) on the input signal. We can make up the volume safely within ARIA.

2. **Use Oversampling** if ARIAPrerelease is not set to 176.4/192kHz.

3. Run ARIAPrerelease at 96kHz or greater whenever possible. 4X CD quality at **176.4kHz is the ideal sample rate to use for most music.**

4. Tricks to force ARIA to reset:
    a. Slightly adjust the correction knob
    b. Slightly adjust an attack setting on a compressor or limiter
    c. Load another preset
    d. Reset ARIA to the default state (standalone version)

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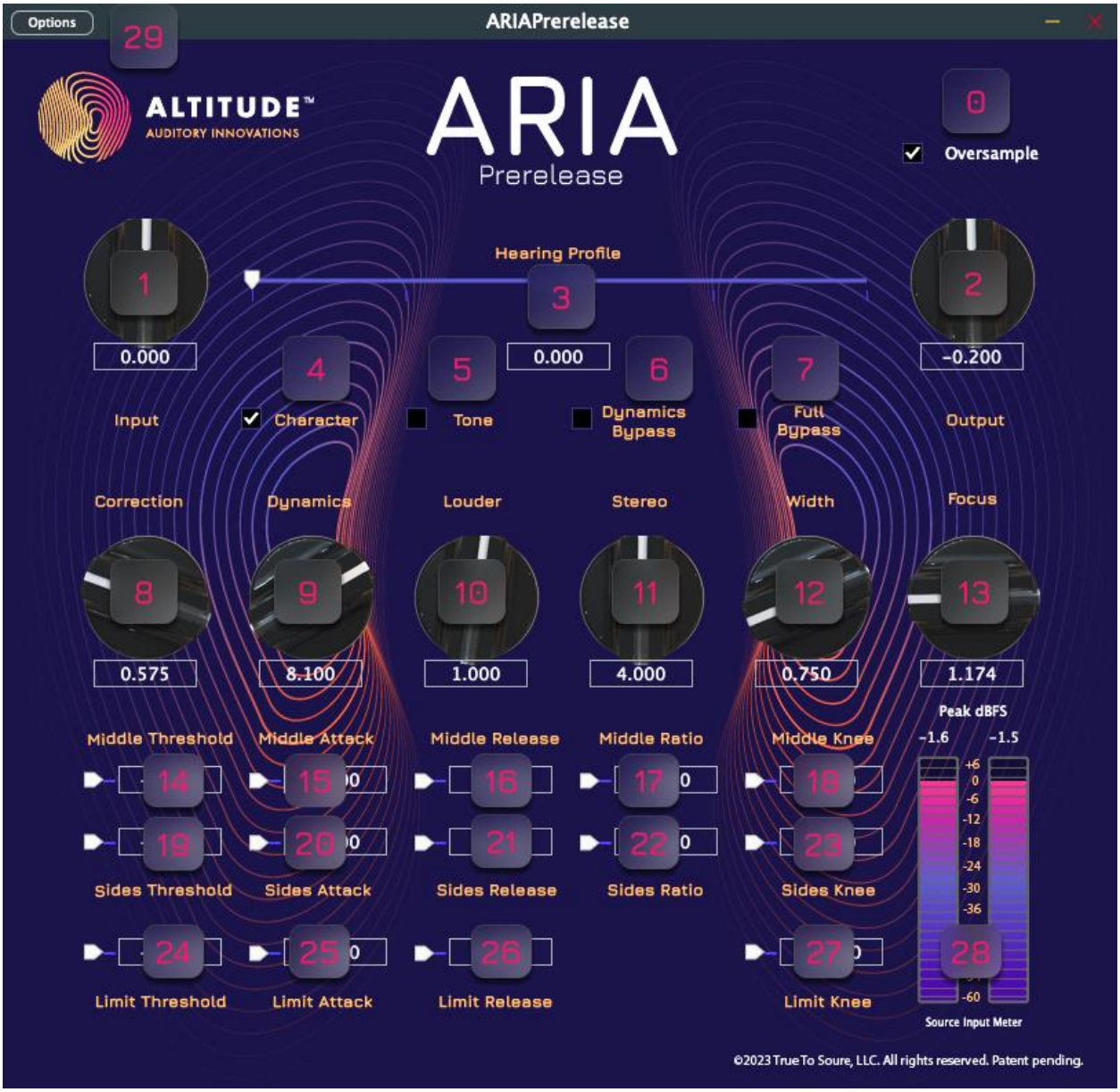
IV. Controls and Parameters



0) Oversample: The most important setting! It sets ARIA's internal processing speed to the recommended sample rate of 176.4/192 kHz. This achieves similar results as ARIA's sample rate setting in the Options menu, but also works in plugin hosts.

1) Input: Adjusts the gain of the signal after ARIA's input point, but before any processing.

2) Output: Adjusts the gain of the output signal at ARIA's audio output after all processing.

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3) **Hearing Profile:** Select from 12+1 unique hearing profiles to find the model most closely matched to your hearing preferences.

4) **Character:** Adjusts the tonality and stereo image of the sound according to the properties of the loaded hearing profile.

5) **Tone:** Adjusts the tonality of low frequencies in some hearing profiles. This parameter is very profile dependent.

6) **Dynamics Bypass:** Bypasses the Enhancement Section, outputting only the corrected audio from the Correction Section. When engaged, only parameters in the Correction Section function.

7) **Full Bypass:** Bypasses all ARIA processing, only passing the audio signal through the Input and Output stages.

8) **Correction:** Adjust the amount of hearing refinement applied to the source signal within ARIA's Correction section.

9) **Dynamics:** Adjusts the amount of (if any) dynamics processing applied to the corrected signal. Use this parameter to reestablish the original dynamic range and to refine the tonality of the final sound.

10) **Louder:** Adjusts processing components that can make some sonic qualities appear louder. It also helps to reestablish the original dynamic range and to refine the tonality of the final sound, albeit with a different effect from the Dynamics parameter.

11) **Stereo:** Adjusts the perceived stereo image following correction. Most often used to fine-tune the stereo image to taste, along with the Width and Focus parameters.

12) **Width:** Adjusts the perceived width of the stereo image after correction. Most often used to fine-tune the stereo image to taste, along with the Stereo and Focus parameters.

13) **Focus:** Adjusts the perceived Focus of the stereo image following correction. Most often used to fine-tune the stereo image to taste, along with the Stereo and Width parameters.

Dynamics Parameters: Dynamics parameters each individually impact the sonic characteristics of the audio, which are most often used in a coordinated fashion. These parameters can be set to do nothing, enhance the corrective aspects of the audio, or anything in between.

14) **19) & 24) Threshold:** The threshold in dB of the corresponding compressor or limiter component.

15) **20) & 25) Attack:** The attack time in seconds of the corresponding compressor or limiter component.

16) **21) 26) Release:** The release time in seconds of the corresponding compressor or limiter component.

17) **& 22) Ratio:** The compression ratio of the corresponding compressor component.

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18) 23) & 27) Knee: The curve used to apply gain reduction in the corresponding compressor or limiter component.

28) Volume Meters: Input volume of the source audio by left and right channels.

29) Options: The Options button is used to:
a) Access ARIA's Audio/MMIDI settings
b) Load an ARIA preset
c) Save an ARIA preset
d) Reset ARIA to default state

V. ARIA Standalone Loading & Saving States

ARIA is designed to have file & folder access to your Music folder and your Downloads folder. Alternate locations are not viable pathways to save states.

NOTE: Save your states in your ~/Music/ARIA User Resources/ folder.

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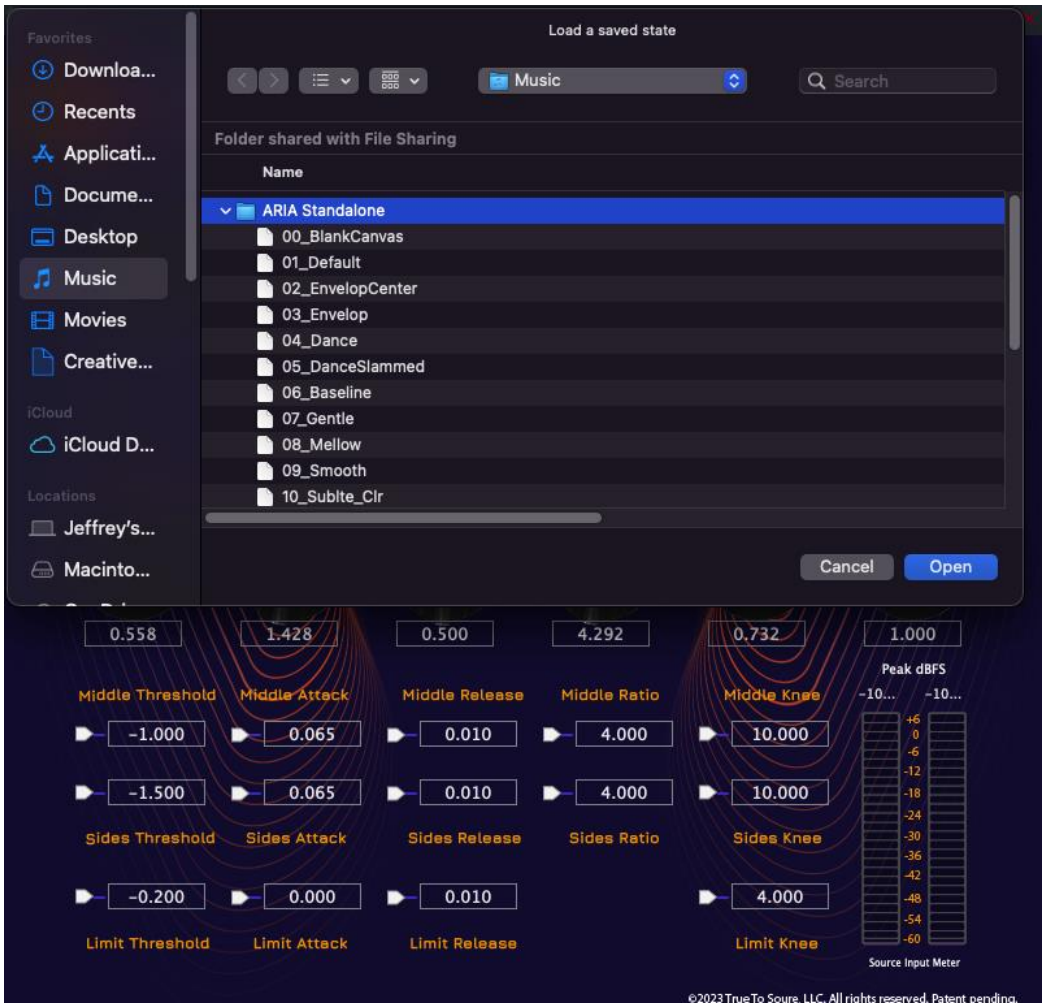

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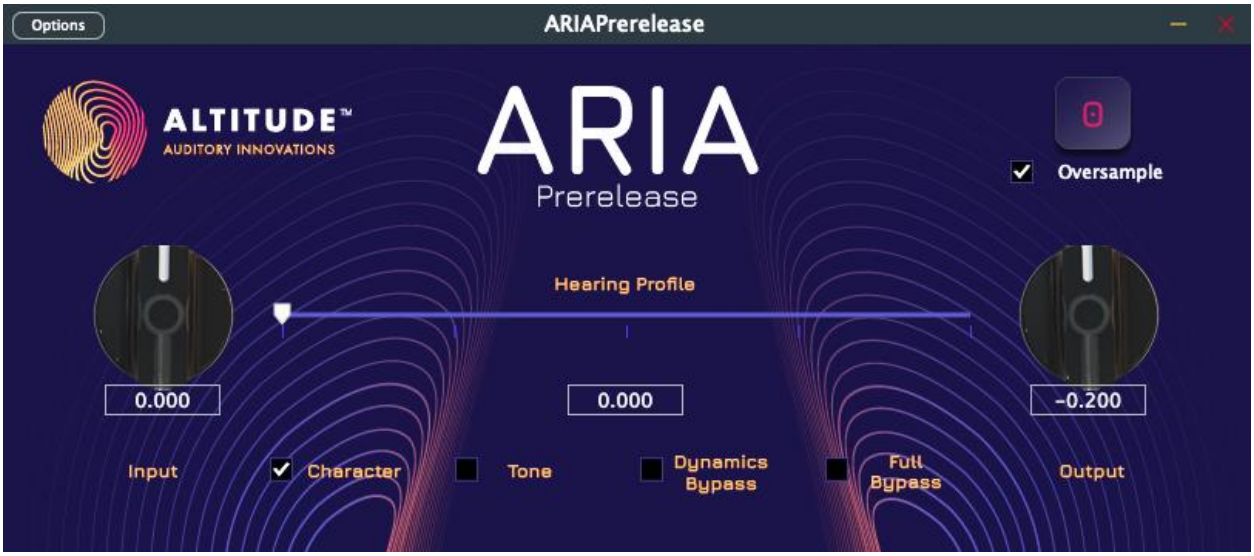
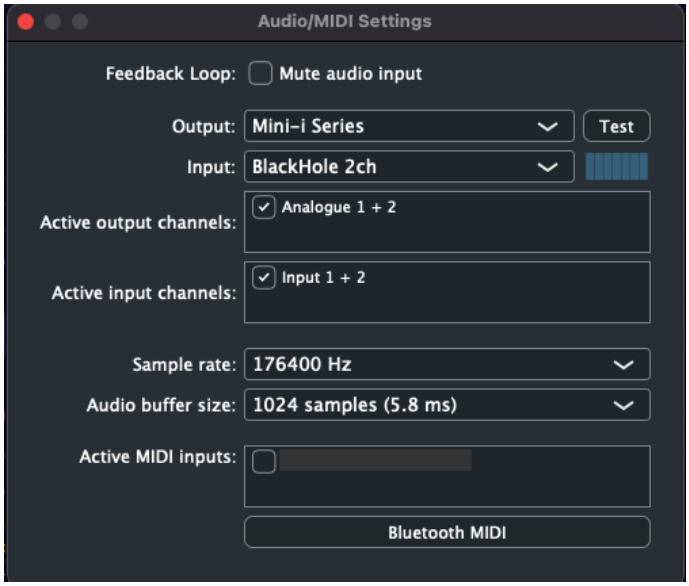
VI. Sample Rates & ARIA's Operating Frequency

ARIA can operate at sample rates up to 768kHz, but is engineered for optimal performance at 4X CD quality. Whenever possible, set ARIA's sample rate in the Options menu or your plugin host to 176.4 kHz. Alternatively, you may enable ARIA's Oversample mode, which will achieve the same result.



Set the sample rate for the standalone application in ARIA's Audio/MIDI settings, accessible from the Options menu.



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VII. Audio Routing To ARIA

ARIA can accept any digital audio signal as a standalone application or when used as a plugin within a host, such as a Digital Audio Workstation. There are many highly performant virtual audio drivers available and the best one depends on your output audio device—e.g. a connected DAC or AirPods.

Here is a visual representation of how audio is routed to ARIA for processing and out to your audio device.

* Insert additional applications as desired

When using AirPods or anything that uses less common sample rates, we recommend using Loopback as your virtual audio driver. It will allow you to setup multiple audio drivers at different sample rates, while also handling the sample rate conversion to AirPods 48kHz sample rate.

When using ARIA with highly performant audio gear, we recommend using the BlackHole 2 channel virtual audio driver. We also recommend using Reaper to host ARIA, as Reaper enables many different metering and resampling options.

To bring your implementation to pinnacle sonic performance, we recommend using Roon→ HQPlayer at 176.4kHz or 192kHz → BlackHole 2ch at a variable rate → ARIA hosted in Reaper with a project sample rate of 176.4 or 192kHz → DAC.

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VIII. Technical Specifications

Mac:
CPU: Apple Silicon M1 and newer for Arm64 versions or Intel Core i5 / i7 / i9 / Xeon W 2013 and up for x86 versions.

Memory: 8 GB RAM (16 GB recommended) & 16 GB free disk space on the system drive.

Operating System: macOS Catalina 10.15, Big Sur 11, Monterey 12, Ventura 13, or Sonoma 14

Screen Resolution: 1280x1024 / 1600x1024

Windows:
ARIA Prerelease is currently not available for Windows. Please let us know if you're interested in a Windows version of ARIA.

Supported Hosts:
Plugin hosts that support AUv3 or VST3 plugins, such as Digital Audio Workstations (DAW), will host ARIA. Options like Logic Pro X, Reaper, Ableton Live, AudioHijack, and Audacity all work well.

We prefer Reaper for its sample rate management.

Audio Routing:
Whether you're on the standalone application or the plugin, you'll need a virtual audio driver for routing. Try options like BlackHole, Loopback, VB Cable, or AudioHijack.

Don't forget to check out our setup tutorials for tricks on our YouTube channel.

Sample Rates:
Both the plugin and standalone app support sample rates ranging from 44.1 kHz to 768 kHz. The ideal sample rate for ARIA is 176.4 kHz, which is 4X CD quality. ARIA must operate at 176.4/192kHz &/or with Oversample mode active for optimal results.

IX. Resources

Setup Tutorials: https://www.youtube.com/@AltitudeAuditoryInnovations

Blackhole: https://existential.audio/blackhole/
Loopback: https://rogueamoeba.com/loopback/
AudioHijack: https://rogueamoeba.com/audiohijack/
VB Cable: https://vb-audio.com/Cable/

HQPlayer: https://www.signalyst.com/consumer.html
Reaper: https://www.reaper.fm/
Roon: https://roon.app

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