VIRTUAL DJ

AUDIO & VIDEO MIXING
DJ SOFTWARE

American Audio®

VMS4
DIGITAL WORK STATION

VMS4.1
DIGITAL WORK STATION

AMERICAN AUDIO

VMS4.1

atomix
PRODUCTIONS

SOUND TECHNOLOGY PROVIDER

Table of Contents

INSTALLATION

Firmware & Drivers & Setup

Firmware: Update the device to the latest firmware (if available) from
http://www.adjaudio.com/ProductDetails.aspx?ItemNumber=1447&MainId=1&Category=23
http://www.adjaudio.com/ProductDetails.aspx?ItemNumber=1478&MainId=1&Category=23

Drivers: Install the latest ASIO drivers (**for Windows only**) from
http://www.adjaudio.com/ProductDetails.aspx?ItemNumber=1447&MainId=1&Category=23
http://www.adjaudio.com/ProductDetails.aspx?ItemNumber=1478&MainId=1&Category=23

Setup: Set the front switcher to **8out** position. Connect your amplified speakers or your amplifier to the Master (RCA or XLR) outputs at the rear side and **power on** the unit from the back switcher. Connect your Headphones at the front side and make sure **all MIDILOGS** switchers at the front are **on USB position.**

VirtualDJ 8 Setup

Download and install VirtualDJ 8 from http://www.virtualdj.com/download/index.html (in case you have not done already)

Once VirtualDJ 8 is launched, a Login Window will appear. **Login** with your virtualdj.com account. A **Pro Infinity** a **PLUS Controller or a Subscriber License** is required to fully use the American Audio VMS4/VMS4.1. Without any of the above Licenses, the controller will operate for 10 minutes each time you restart VirtualDJ.
http://www.virtualdj.com/buy/index.html
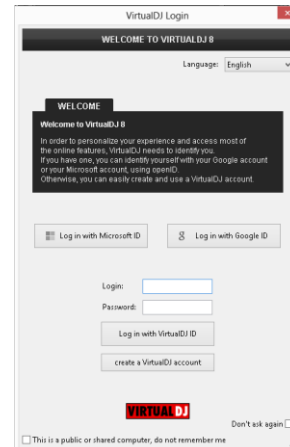
A **detection** window will appear next, to verify the proper connection**. Click** on the *Use Soundcard* button in order VirtualDJ to automatically apply the **pre-defined audio setup** of the VMS4/VMS4.1.

Click **OK**.

The unit is now **ready** to operate.

ADVANCED SETUP

Midi Operation

The unit should be visible in the CONTROLLERS tab of Config and 2 different mapping selections should be offered in the Mappings drop-down list (factory default and Browser mode mapping)

The operations of the **alternative Browser mode mapping** are explained with **blue color** in this manual.

The 2 default mappings offer the functions described in this Manual, however those can be adjusted to your needs via VDJ Script actions.

Find more details at
http://www.virtualdj.com/wiki/VDJscript.html
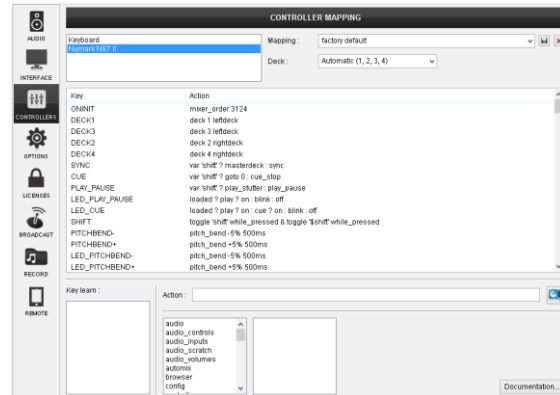
Audio Setup

The unit has a **pre-defined** Audio setup and a **special button** in the AUDIO tab of Config to provide that. Alternative Audio setups can be applied in the same window (see Advanced Audio Setup).
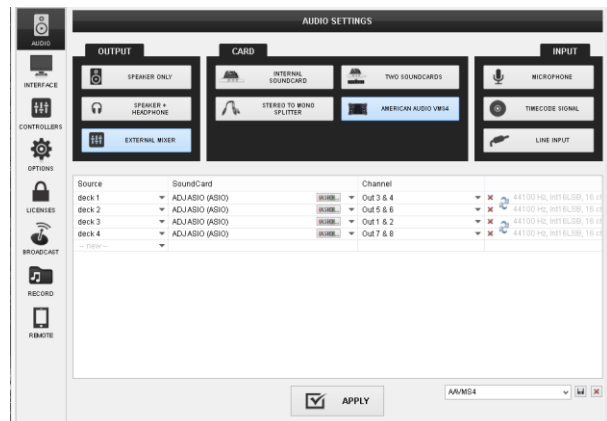
Please refer also refer to the manual of the unit for further connections/capabilities and setups.
http://www.adjaudio.com/pdffiles/vms4.pdf
http://www.adjaudio.com/pdffiles/vms4-1.pdf

For further VirtualDJ settings and features please refer to the User Guides of VirtualDJ 8.
http://www.virtualdj.com/wiki/PDFManuals.html

CONTROLS

A. Mixer

The mixer of the VMS4/VMS4.1 is **routing and handling the sound internally** (hardware), but all the adjustments and movements are visible on the VirtualDJ GUI.

   1. CROSSFADER. Blends audio between the channels assigned to the left and right side of the crossfader.

   2. VOLUME. Adjust the Volume of each Midilog/Deck.

   3. VU METERS. Indicate the level of the Master Output. If a CUE/PFL button is selected, the VU METERS will indicate the level of the selected Midilog/deck.

   4. CUE/PFL. Press these buttons to send one or more Midilogs/decks to the Headphones Output channel.

5. **BASS (EQ).** Adjust the Low frequencies for each Midilog/deck. See more in EQ Mode.

6. **MID (EQ).** Adjust the Middle frequencies for each Midilog/deck. . See more in EQ Mode.

7. **TREBLE (EQ).** Adjust the High frequencies for each Midilog/deck. See more in EQ Mode

8. **GAIN.** Adjust the Gain of each Midilog/deck

9. **MASTER VOLUME**. Adjust the level of the Master Output.

10. **BALANCE**. Balance the Master Output (Left I Right Pan)

11. **BOOTH VOLUME**. Adjust the level of the Booth Output.

12. **MOUSE PAD**.
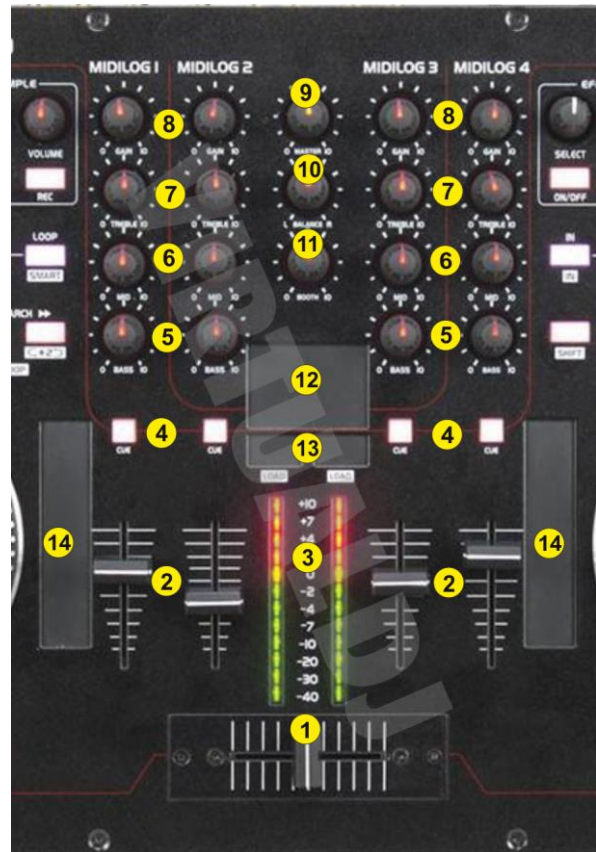
13. **MOUSE BUTS**. Left and Right mouse click operations. Hold SHIFT down and then use the Mouse buttons to load the selected track to the left or right selected deck.
In Alternative Mapping, the Mouse buttons have no function.

14. **TOUCHSTRIPS**. Use the left touch-strip to scroll through files and the right one to scroll through files.
In Alternative Mapping, the touch-strips have no function

B. Decks

15. **PAUSE**. This button operates depending on the selected **Stop Button** behavior (setting available in **Deck Options** in the default VirtualDJ GUI). By default, press this button to pause the track if playing. If the track is paused, press this button to cycle though the available stored Cues.
In Default Mapping, hold **SHIFT** down and then press this button to **swap the assigned decks for the left or right side of the VMS4**. The left side of the VMS4 can be assigned to control decks 1 or 3 and the right side can be assigned to control decks 2 and 4.
In Alternative Mapping hold **SHIFT** down and then press this button to **stop the deck at the beginning** of the track.

16. **PLAY**. This button operates depending on the selected **Play button** mode (setting available in **Deck Options** in the default VirtualDJ GUI). In default (Play-Stutter)

mode, press this button to play the track if pausing or play-stutter from the previous stopped point if the track is playing.

17. **CUE.** This button operates depending on the selected **Cue Button** mode (setting available in **Deck Options** in the default VirtualDJ GUI).

In default mode when the Deck is paused, you can **set a temporary Cue** Point. During playback, you can press the Cue Button to return the track to this Cue Point. (If you did not set a Cue Point, then it will return to the beginning of the track.).

If the Deck is paused, you can press and hold the Cue Button to play the track from the Temporary Cue Point. Releasing the Cue Button will return the track to the temporary Cue Point and pause it.

To continue playback without returning to the Temporary Cue Point, press and hold the Cue Button, then press and hold the Play Button, and then release both buttons.

A different behavior (e.g. Cue-Hold or Cue-Cup) can be selected from the **Deck Options** (available in the default GUI of VirtualDJ 8)

18. **JOG**. Touch-sensitive jogwheel for scratching (Vinyl Mode), pitch bending (CD mode) and other functions described in this manual. If the jogwheel is on Scratch (Vinyl) mode, use the outer ring of the jogwheel to pitch-bend. Hold **SHIFT** down and then use the jogwheel to fast **search through the** loaded **track** (Seek mode)

19. **PITCHBEND-.** Press and keep this button down to **temporary slow-down** the tempo of the track. When the button is released, the track will return to the tempo defined by the pitch slider. Hold SHIFT down and then use the same button to slow-down the track more intensively
In Alternative Mapping, press this button on the left side to **assign deck 3 as Left Deck** or the right side **to assign deck 2 as Right Deck**. Hold **SHIFT** down and then press this button to **temporary slow-down** the tempo of the track.

20. **PITCHBEND+.** Press down this button to **temporary speed-up** the tempo of the track. When the button is released, the track will return to the tempo defined by the

pitch slider. Hold SHIFT down and use the same button to speed-up the track more intensively.

In Alternative Mapping, press this button on the left side to **assign deck 1 as Left Deck** or the right side to **assign deck 4 as Right Deck**. Hold **SHIFT** down and then press this button to **temporary slow-down** the tempo of the track.

In Alternative Mapping the Leds of the PITCHBEND+/- buttons will indicate which deck is selected as Left or Right (following the default channel mixer order 3-1-2-4.

21. **SHIFT.** Press and hold this button to access secondary functions (mainly in white lettering) of other controls on the VMS4

22. **VINYL**. Press this button to set the Jogwheel to **Vinyl** (Scratch) or **CD** (Bend) **mode**. In Vinyl mode, use the outer part of the Jogwheel to bend (temporary speed up – slow down the tempo of the track).
Hold **SHIFT** down and then press this button to "**lock**" the track's pitch to its original **key.** (Master Tempo). The track's tempo will remain at the speed designated by the Pitch Fader.

23. **SEARCH<<.** Press and hold this button to **move** the track **backwards** by **4 beats**. Hold **SHIFT** down and then use this button to **half** the size of the **Loop**. If a Loop is triggered use this button to half the size of the loop. The Led of the button will be lit if a Loop is enabled to indicate the secondary function.

24. **SEARCH>>.** Press and hold this button to **move** the track **forward** by **4 beats**. Hold **SHIFT** down and then use this button to **double** the size of the **Loop**. If a Loop is triggered use this button to double the size of the loop. The Led of the button will be lit if a Loop is enabled to indicate the secondary function.

25. **LOOP IN.** Press this button to **set a Loop In** (Entry point). Hold **SHIFT** down and then press this button to set the Jogwheel to **Loop In mode** and (fine) adjust the Loop In point using the jog when a loop is enabled. The Led of the button will blink to indicate the Loop In Wheel mode. Press again to return the Jogwheel to Jog mode.

26. **LOOP OUT.** Press this button to **set a Loop Out** (Exit point). Hold **SHIFT** down and then press this button to set the Jogwheel to **Loop Out mode** and (fine) adjust the Loop Out point using the jog when a loop is enabled. The Led of the button will blink to indicate the Loop Out Wheel mode. Press again to return the Jogwheel to Jog mode.

27. **RELOOP**. Press this button to **exit a Loop** or trigger the last enabled Loop (reloop). Hold **SHIFT** down and then press this button to set the Jogwheel to **Loop Move mode** and move the Loop through the track using the jog when a loop is enabled. The Led of the button will blink to indicate the Loop Move Wheel mode. Press again to return the Jogwheel to Jog mode.

28. **LOOP**. Press this button to enable/disable a **Loop** of the selected size. Hold **SHIFT** down and then use this button to enable/disable the **Smart Loop** (for seamless looping)

29. **HOTCUES (1-4).** The 4 buttons **assign a Hot Cue** Point (1 to 4) or **returns the track to that Hot Cue Point**. When a Hot Cue Button is unlit, you can assign a Hot Cue Point by pressing it at the desired point in your track. Once it is assigned, the Hot Cue Button will light. To return to that Hot Cue Point, simply press it.

Press and hold **SHIFT** and then press a Hot Cue Button to **delete** its assigned Hot Cue Point.

30. **PITCH.** Adjust the track's playback speed (tempo).
The actual pitch fader will not alter the pitch of the track if the actual pitch and the software pitch value do not match (software soft-takeover, ghost fader visible on the GUI). In most cases this may happen if SYNC is prior pressed or switching decks and the other deck is having a different pitch software value.

31. **SYNC**. Press this button to automatically **match** the corresponding Deck's **tempo** with the opposite Deck's (or the Master Deck's if using a 4 decks Skin) tempo and phase. Hold SHIFT down and then press this button to adjust the **range** of the **Pitch** Fader (to ±6%, ±8%, ±10%, ±12%, ±20%, ±25%, ±33%, ±50%, and ±100%).

C. Effects & Sampler

32. **FX SELECT.** Use this encoder to **select the Effect** applied to the Left or Right selected decks. Hold **SHIFT** down and then use this encoder to adjust the **Key** of the loaded track.

33. **FX ON.** Use this button to **trigger** the selected **Effect** to the Left or Right selected deck. Hold **SHIFT** down and then press this button to **reset** the **Key** of the track to its original value.

34. **FX PARAMETER.** Hold down this button to offer **secondary function** to the FX CONTROL (35) knob. Hold **SHIFT** down and then press this button to **reset** the applied Low-High Pass **Filter** (off/middle software position)

35. **FX CONTROL**. Use this knob to control the **1st parameter** of the selected **Effect**. While the **FX PARAMETER** button is **pressed,** use this knob to control the **2nd parameter** of the selected **Effect.** Hold **SHIFT** down and then use this knob to apply a Low-High Pass **Filter**.

36. **SAMPLE SELECT**. Use this encoder to **select** the **sample** from the loaded/selected Sampler Bank of VirtualDJ 8. Hold **SHIFT** down and use this encoder to **select** and load a different **Sampler Bank**.
Push the encoder to select the next available **Trigger Pad mode** (On/Off, Hold, Stutter and Unmute)

37. **SAMPLE PLAY**. Use this button to **trigger** (behavior depends on the selected Sampler Trigger mode) the selected **Sample** from the loaded/selected Sampler Bank of VirtualDJ. Hold **SHIFT** down and then use this button to **half** the size of the **Sampler loop** (if the sample is in Loop mode).

38. **SAMPLE REC**. Use this button to **record** the selected Left or Right **deck to a new Sample**. Hold **SHIFT** down and then use this button to **double** the size (in beats) of the **Sampler loop** (if the sample is in Loop mode)

39. SAMPLE VOLUME. Use this knob to adjust the **Volume** of the **selected Sample**.

In Alternative Mapping the Sampler section offers **an additional Browser mode**. Hold **SHIFT** down and then **push the SAMPLER SELECT** encoder to toggle between the **Sampler and Browser mode**.

36. SAMPLE SELECT. In Alternative Mapping if the Browser mode is enabled, use this encoder to **scroll though files or folders**. **Push** the encoder to **load** the selected track to the left or right deck. If the focus is on the Folders list, **push** the encoder to **open/close** the **subfolders**.
Hold **SHIFT** down and then use the encoder to **cycle through** the available windows of the **Sideview** (Automix, Sidelist, Karaoke, Sampler and Clone)
Hold **SHIFT** down and then **push** the encoder to toggle between the Sampler and Browser mode.

37. SAMPLE PLAY. In Alternative Mapping, if the Browser mode is enabled, press and **keep** this button **down** to **set** the **focus to the Folders list.** If not pressed, the focus will be set to the **Songs List**.
If the Browser mode is selected, the Led of this button will be lit to indicate the selected mode.

38. SAMPLE REC. In Alternative Mapping, if the Browser mode is enabled, press and **keep** this button **down** to **set** the **focus to the Sideview List.** If not pressed, the focus will be set to the **Songs List.**

39. SAMPLE VOLUME. In Alternative Mapping, this knob has no assigned function when the Browser mode is selected.

D. Front side

40. MIC ON. Turn On/Off the Microphone Inputs 1 and 2 of the unit.

41. MIC GAIN. Adjust the Volume of the Microphone Inputs 1 and 2 of the VMS4 (rear connection)

42. MIC EQ. Adjust the Low (Bass), Medium (Middle) and the High (Treble) frequencies of the Microphone Inputs 1 and 2 of the VMS4.

43. MIDILOG SWITCHER. Turn the switcher to the **USB position** to allow the Midilog Channel to **control** the **VirtualDJ deck**. In 4out mode, the Midilogs 1 and 4 will not route the sound to any VirtualDJ deck.

Turn the switcher to **ANALOGUE position** to use a Midilog as an **analogue input source.** In this position the sound of the VirtualDJ **deck will be muted.**

44. **CROSSFADER CH ASSIGN**. Define which Midilog will be assigned as left or right side of the crossfader. In OFF position all Midilogs/decks will be outputted on either left or right side of the crossfader. In all other positions, one Midilog will be assigned as left or right. Note that the numbers on the knob indicate the Midilogs and not the VirtualDJ decks. E.g. if the left CF CH ASSIGN knob is at the position numbered 2, (indicating the 2nd Midilog) VirtualDJ deck 1 will be assigned as left side of the crossfader.

45. **4out-8out**. Define the mode that the built-in sound card of the VMS4 will operate. See more in Advanced Settings.

46. **NORMAL-REVERSE**. Switch to REVERSE position if you wish the crossfader to operate in reverse mode (Hamster)

47. **CROSSFADER CURVE**. Define how the crossfader will blend left and right assigned channels (from Smooth to Scratch curve).

48. **CUE MIX.** Adjust how the mixer Channels and the Master Output blend at the Headphones Channel. Hardware operation, but movement visible on the VirtualDJ GUI.

49. **CUE GAIN**. Adjust the Volume Output of the Headphones Channel. Hardware operation, but movement visible on the GUI.

50. **HEADPHONES**. Connect your Headphones

E. Rear side

51. **POWER**: Use the included power adaptor to connect VMS4 to a power outlet. While the power is switched off, plug the cable into VMS4 first, and then plug the cable into a power outlet. Use the Power Switch to turn the VMS4 on and off. Turn on VMS4 after all input devices have been connected and before you turn on amplifiers. Turn off amplifiers before you turn off VMS4.
The power connection is not necessary if the unit is only used as a Midi controller; however it is strongly advised to be used.

52. **USB**. This USB connection sends and receives audio and control information from a connected computer.

53. **MASTER OUTPUT (XLR):** Connect this low-impedance XLR output to a PA system or powered monitors. The level of this output is controlled with the Master knob on the top panel.

54. **BOOTH OUTPUT (BALANCED**): Use standard RCA cables to connect this output to a booth monitoring system. The level of this output is controlled by the Booth knob on the top panel.

55. **MASTER OUTPUT (RCA):** Use standard RCA cables to connect this output to a speaker or amplifier system. The level of this output is controlled by the Master knob on the top panel.

56. **LINE INPUTS**. Connect your audio sources to these inputs. Midilog Inputs 2 and 3 can accept both line and phono-level signals.

57. **MIC 2 INPUT**. Connect your 1/4" or XLR microphone to these inputs. Microphone controls are located at the front Microphone panel.

ADVANCED SETTINGS

Midilog Routing & Mixer Order

The **mixer** of the VMS4 is pre-mapped to operate with 2 different **channel orders 3-1-2-4 (default)** or **1-2-3-4**.
The selection can be made with the default 4 decks skin of VirtualDJ 8 from the **Mixer Options menu**.

The mixer channel order 1-3-4-2 is <u>not supported</u> by the default mapping files and should be not selected.

Note also that the **Fake mixer** option is selected (cannot be changed from the menu). This option indicates that the **audio mixing is handled by the VMS4** mixer and the VirtualDJ GUI will simply show the status of the VMS4 mixer but will **not use the internal software mixer.**
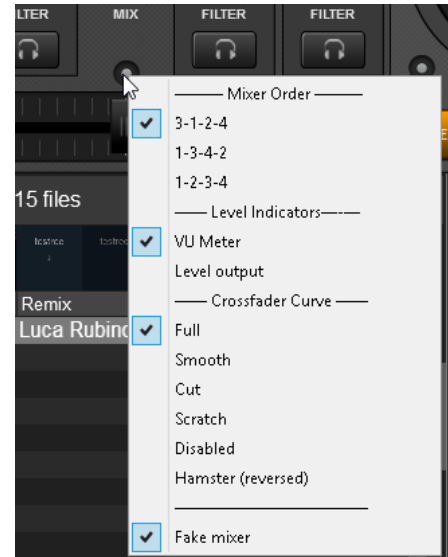
Mixer Options

Depending on the selected channel mixer order, you will **also need to properly assign the Midilogs channels**, otherwise the GUI of VirtualDJ will show the correct mixer status but the audio will be routed incorrectly.
How to:
Go to the AUDIO tab of Config and **change the Outputs** order at the **Channel column** as per the images below
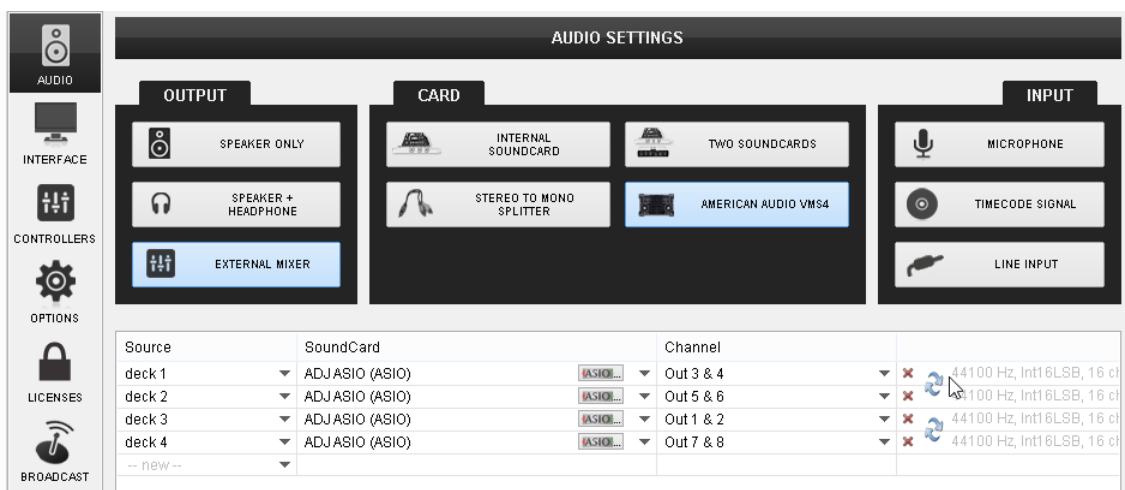
Mixer Order 3-1-2-4 (default) – Windows 8out mode

Mixer Order 1-2-3-4 – Windows 8out mode

Mixer Order 3-1-2-4 (default) – Mac OSX 8out mode

Mixer Order 1-2-3-4 – Mac OSX 8out mode

Midilog Routing using the ASIO settings (Windows only)

An alternative (but not suggested) way to assign the Midilogs to a different Output channel (instead of editing the Audio configuration of VirtualDJ as above) is within the ASIO Settings utility of the VMS4.

The default Midilog Channel assignment is the following.
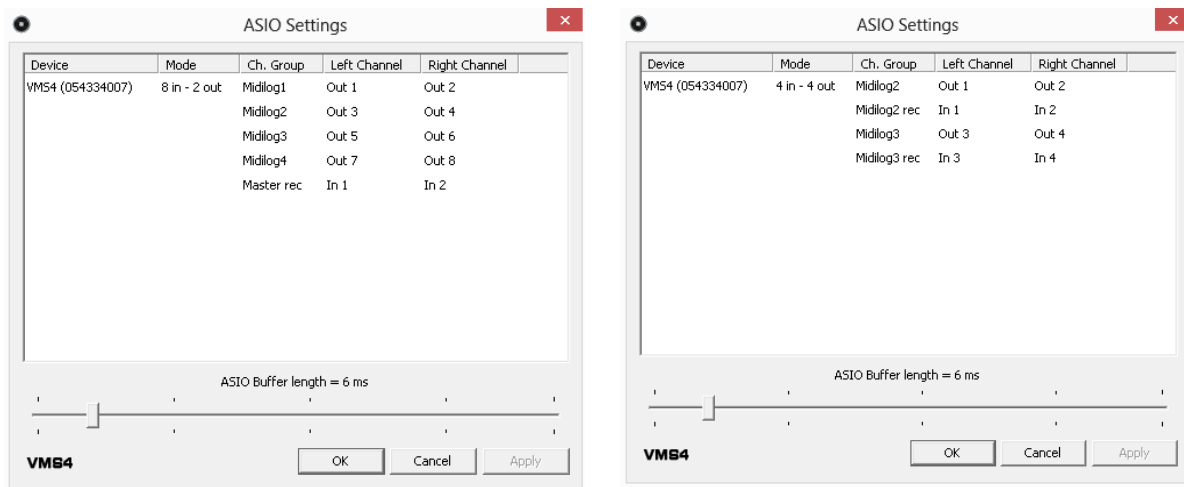
Default Midilog Channels 8out mode

Default Midilog Channels 4out mode

The Midilog routing on Mac OSX computers is only available within the Audio configuration of VirtualDJ.

EQ mode

The Equalizer (Treble, Mid & Bass) section of the VMS4/VMS4.1 can work in two different modes, **Pre EQ and Post EQ** and those are offered in both 4out and 8out modes.

How to:

To toggle between the 2 EQ modes, before powering up the VMS4, press and hold the PFL CUE (4) on the 4th MIDILOG channel and then power "ON" the unit. Release the button. Your computer may reinstall the VMS4 as a new device, please allow 10-20 seconds for the change to take place.

You can verify the change from the ASIO Settings Utility (**Windows only**)
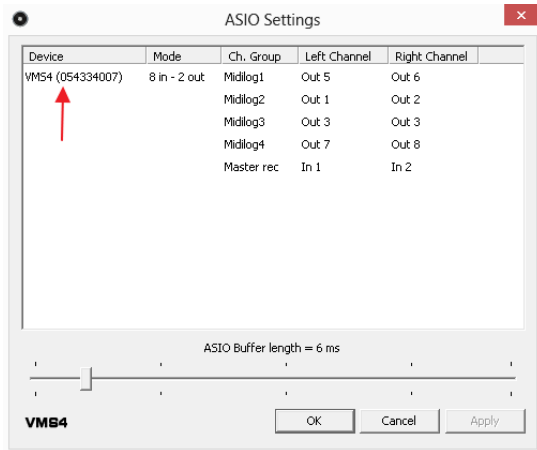
Pre EQ mode (default)

In Pre EQ the USB audio signal is affected by the VMS4 EQ. Pre EQ is the default EQ. In

Pre EQ mode the ASIO Driver will list the VMS4 **device number**, the first number in the sequence will be a "**0**" (see image below)
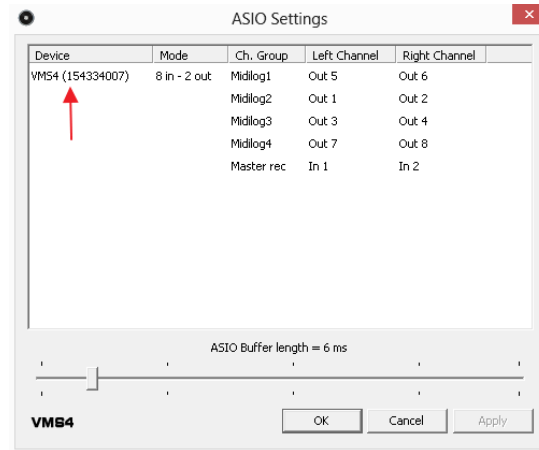
Post EQ mode

Post EQ is for users who prefer using the EQ from VirtualDJ instead of the Hardware one (e.g. to get the parametric EQ of VirtualDJ 8).

In Post EQ mode the ASIO Driver will list the VMS4 **device number**, the first number in the sequence will be a "**1**" (see image below)

*Device number in Pre EQ mode*   *Device number in Post EQ mode*

If the Post EQ mode is selected, you will also need to **modify the ONINIT key** of the Mapping files (or at least the one that you need to use – Default or Browser mode).

How to:

Launch VirtualDJ 8 and head to the CONTROLLERS tab of Config. Select the American Audio VMS4 from the left devices list and select the mapping file you wish to use (and modify). Locate the ONINIT key from the middle Key list (you can also sort by Key for easier search).

Click on the ONINIT key to get the pre-assigned action in the Action field.

Edit the **fake_eq on** action to **fake_eq off**
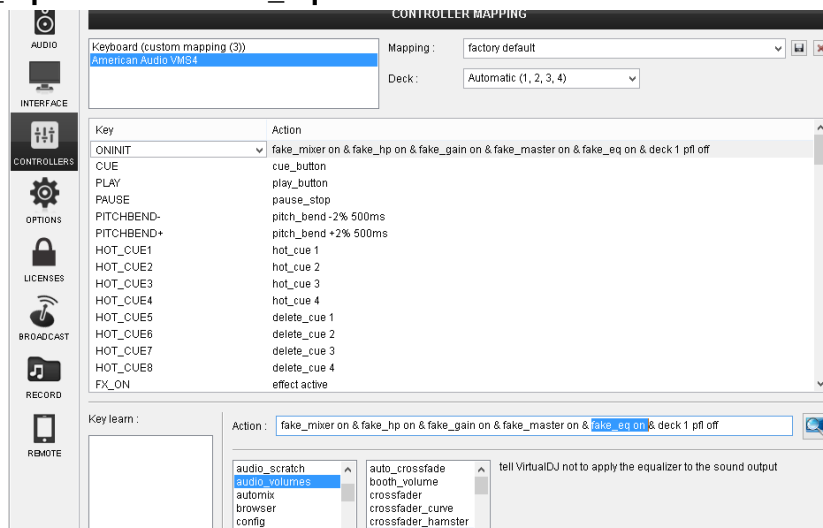
Once the change is done, a modified (custom) mapping will be auto-created which can be renamed as well from the top-right field.

Re-launch VirtualDJ 8 or choose a different mapping and back the one you edited again, in order the assigned action of the ONINIT key to be applied.

To **verify** that the "fake" EQ is off and the VMS4 is now controlling the VirtualDJ Internal EQ (for both Windows and Mac), the EQ knobs **should not** now **kill the sound** if all 3 EQ Band knobs are at the far left position and the **EqualizerMode** setting is set to **Default** from the OPTIONS.

Recording & Broadcasting

VirtualDJ will not be able to record (or broadcast) your mixing directly as the audio mixing is handled by the VMS4. In case you need **to record** (or broadcast) your mixing along with all the external sources (AUX) and the Microphone Inputs of the VMS4, you will need to manually **add a record line** to the Audio configuration as following.
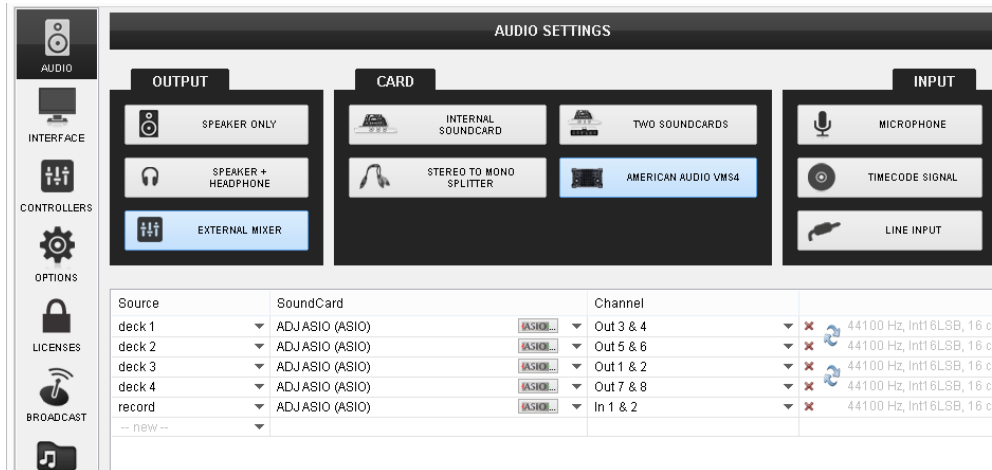
*Audio setup – Recording (8out)*

Note that the VMS4 needs to be on the **8out mode** for proper recording.
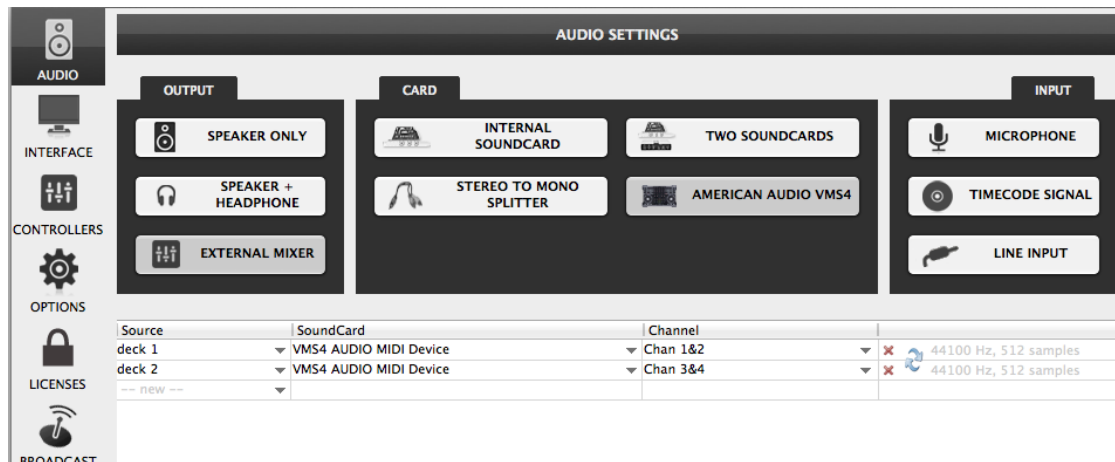
4out mode & Audio Setup

The VMS4 offers a pre-defined audio configuration for the 8out mode, however if the **4out mode** is selected from the front switcher (mainly for Timecode use), the audio needs to be **manually configured** as the Midilogs are not automatically assigned properly.

How to:
Go to the AUDIO tab of Config and change the decks order at the Source column as per the following images:
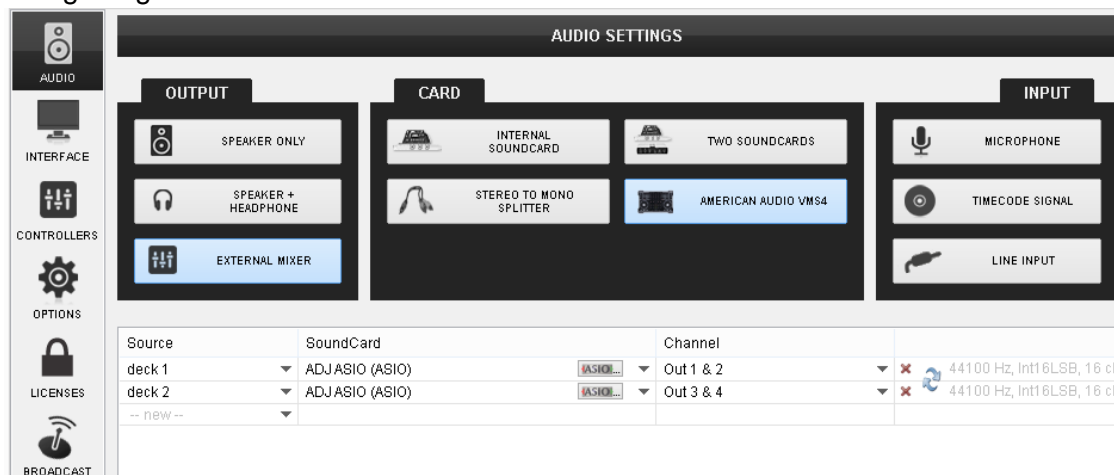
4out mode – audio configuration (Windows)

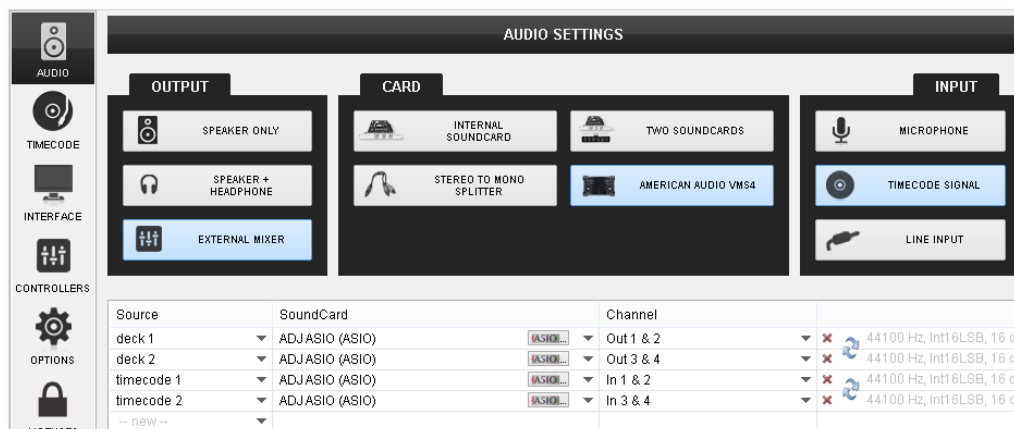*4out mode – audio configuration (Mac OSX)*

Timecodes

The VMS4 is capable to offer a Timecode setup (DVS) with its built-in 4out/4in audio interface.

How to:
Power off the unit, set the front switcher to the **4out position** and **power** the unit back **on**.

Launch VirtualDJ 8, head to the AUDIO tab of Settings and click on the **TIMECODE SIGNAL** button you will find at the INPUTS tab of the Audio Settings.

2 additional lines will be automatically added to the audio configuration. You will then need to make sure that the **decks are routed properly** to the Midilog Channels as per the following image or as per the images shown in the 4out mode.

Timecode Audio setup

Useful Links

VirtualDJ web-page: http://www.virtualdj.com
VirtualDJ Support Center: http://www.virtualdj.com/contact/index.html
VirtualDJ 8 Operation Guides: http://www.virtualdj.com/wiki/PDFManuals.html

American Audio web-page: http://www.adjaudio.com/
American Audio Support Center: http://www.adjaudio.com/Support.aspx

American Audio VMS4 product page:
http://www.adjaudio.com/ProductDetails.aspx?ItemNumber=1447&MainId=1&Category=23
American Audio VMS4.1 product page:
http://www.adjaudio.com/ProductDetails.aspx?ItemNumber=1478&MainId=1&Category=23

American Audio VMS4 User Guide: http://www.adjaudio.com/pdffiles/vms4.pdf
American Audio VMS4.1 User Guide: http://www.adjaudio.com/pdffiles/vms4-1.pdf

Hardware Integration Department
VIRTUAL DJ
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