



# FletcherMachine

Reference class spatial audio rendering system

▲ ADAMSON






# FletcherMachine

Introduced in 2022, the powerful FletcherMachine object-based immersive mixing solution has established a loyal following thanks to its unparalleled audio quality, the intuitive user interface, and integrated reverberation and trajectory engines. Version 2 continues to build on this no compromise approach with ample new features, further enhancing the capabilities and workflow of the system.

# UNLEASH IMMERSIVE CREATIVITY. DIVE INTO LIMITLESS POSSIBILITIES.



The FletcherMachine was developed with artistic emotion in mind. Superior audio quality, accurate localization, and a highly intuitive workflow make it the first choice for any immersive application in even the most demanding environments, allowing you to position sound objects in a way you never dreamed of before.

At the heart of the FletcherMachine is a powerful object-based rendering engine, using both amplitude and time localization algorithms to replicate sound sources more accurately in a performance space. The approach enhances the listener's ability to perceive both the direction and distance of sound sources, resulting in a drastically improved engaging experience. Besides a comprehensive set of onboard tools, the FletcherMachine can also be controlled from a mixing console, an audio workstation, a real-time tracking solution, or other interfaces using standard communication protocols.







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# VERSATILE AND EASY TO USE.

The FletcherMachine provides simple and efficient sound spatialization tools. It offers the highest degree of versatility and can be easily scaled for use with various loudspeaker configurations. From plain frontal setups to complex 3D surround applications, in small- or large-scale venues, for touring and permanent installation projects. Elevate the sonic experience of concerts, corporate events, in theme parks, museums, and many more...



**HEARING  
IS BELIEVING**



**Harvey Fletcher**, the “father of stereophonic sound”, revolutionized audio reproduction through his research, laying the foundation of modern spatial sound systems. The FletcherMachine builds on this legacy and has become a leader in immersive audio.





# FEATURES

## // NATURAL SOUND

Very precise rendering, offering a high degree of spatial unmasking. The music becomes easier to mix, requiring less dynamics processing and EQ. Listening fatigue is reduced.

## // WIDE COHERENT LISTENING ZONE

Depending on the size and shape of the room even small frontal setups will already enable correct localization for virtually the entire audience. Sources are perceived at their correct position, providing more space for instrumentation and movement, creating a more engaging listening experience.

## // ULTIMATE VERSATILITY

Mixes are quickly and efficiently translated from frontal stages to surround setups to full 3D configurations with multiple elevation layers. Fill systems and delay lines are integrated with ease. Positional information of the loudspeaker deployment is imported directly from ArrayIntelligence and Blueprint. Additional mixes in virtually any channel-based format can be created, and integrated binaural rendering with head tracking allows to use the FletcherMachine even without loudspeakers.

## // ACOUSTIC SPACES REDEFINED

The newly developed premium reverberation processor offers up to three autonomous engines, allowing the creation of beautiful acoustic spaces and astonishing effects.



## // FREEDOM OF CHOICE

Three alternate rendering modes can be selected individually per object and layer. By default, minimum delay rendering will apply zero delay to the nearest active loudspeaker from an object and time align further active speakers to this position. Alternatively, full delay rendering will account for the full propagation delay from an object to each active speaker. And in no delay mode only the distance-based amplitude offsets are applied. Finally, a full matrix with manually adjustable delay and gain at each object to speaker crosspoint is provided for even greater flexibility.

## // SPATIALIZED LOW END

The coverage pattern of sub array configurations can be adjusted per object, allowing to individually optimize the trade-off between opening angle and loss of impact based on the low frequency content of each source.

## // DYNAMIC AND CONNECTED

Quick, simple, and highly efficient tools are provided to position and move objects within the acoustic space, including trajectories, which can be designed and recalled individually for each object. At the same time interfacing with mixing consoles or digital audio workstations to control object positions, snapshot recall or parameter automation is just as easy. Standard protocols allow connecting with external controllers and tracking systems. Timecode can be generated or received to synchronize the show.



**SYSTEM**

SYSTEM		VIRTUAL	TRAV. LITE	TRAVELER	STAGE	STAGE EXT.
GENERAL	Form Factor	Software* (Mac, Win)	SFF <sup>1)</sup>	SFF <sup>1)</sup>	19" / 3U	19" / 3U
	Touch Display	—	—	—	✓	✓
	Audio Interface	—	Dante™ OR AVB / MADI <sup>2)</sup>	Dante™ OR AVB / MADI <sup>2)</sup>	Dante™ OR AVB / MADI <sup>2)</sup>	Dante™ OR AVB / MADI <sup>2)</sup>
	Redundant Engine Mode	—	—	—	AVB / MADI only <sup>4)</sup>	AVB / MADI only <sup>4)</sup>
	Sample Rate (kHz)	44 / 48 / 88 / 96	44 / 48 / 88 / 96	44 / 48 / 88 / 96	44 / 48 / 88 / 96	44 / 48 / 88 / 96
	Latency (ms)	12	1.33	1.33	1.33	1.33
	Number of Inputs	24	32	32 / 48 / 64	32 / 64 / 96	128
	Number of Outputs	12	32	64 / 48 / 32	96 / 64 / 32	128 <sup>2)</sup>
REVERB	Number of Engines	1	1	1	Max. 3 <sup>4)</sup>	Max. 3 <sup>4)</sup>
	Generator based	✓	✓	✓	✓	✓
	Convolution based	—	✓	✓	✓	✓
	Frontal / Surround / 3D	Surround only	✓	✓	✓	✓
SPEAKER PROCESSING	Number of Layers	2	4	6	8	12
AUX SENDS	Pre / Post Fader Aux Sends	0	4	4	4	4



SYSTEM		VIRTUAL	TRAV. LITE	TRAVELER	STAGE	STAGE EXT.
<b>VCA</b>	VCA Controller	8	8	8	8	16
<b>REMOTE CONTROL</b>	FM Remote (Mac, Win)	✓	✓	✓	✓	✓
	VST / AU Plugin <sup>1)</sup>	✓	✓	✓	✓	✓
	Console Plugin <sup>2)</sup>	✓ <sup>3)</sup>	✓ <sup>3)</sup>	✓ <sup>3)</sup>	✓ <sup>3)</sup>	✓ <sup>3)</sup>
	Tracking System <sup>2)</sup>	✓ <sup>3)</sup>	✓ <sup>3)</sup>	✓ <sup>3)</sup>	✓ <sup>3)</sup>	✓ <sup>3)</sup>
	External Protocol <sup>2)</sup>	✓ <sup>10)</sup>	✓ <sup>10)</sup>	✓ <sup>10)</sup>	✓ <sup>10)</sup>	✓ <sup>10)</sup>
	Timecode <sup>2)</sup>	✓ <sup>10)</sup>	✓ <sup>10)</sup>	✓ <sup>10)</sup>	✓ <sup>10)</sup>	✓ <sup>10)</sup>
<b>POWER SUPPLY</b>	100-240 VAC, 50-60 Hz	—	✓	✓	Redundant, hot swap	Redundant, hot swap
	Max. power consumption	—	300 W	300 W	550 W	550 W
<b>WEIGHT &amp; DIMENSIONS</b>	W x D x H (mm)	—	102 x 215 x 263	102 x 215 x 263	482 x 527 x 132 <sup>14)</sup>	482 x 527 x 132 <sup>14)</sup>
	W x D x H (in)	—	4.02 x 8.47 x 10.36	4.02 x 8.47 x 10.36	18.98 x 20.75 x 5.20 <sup>14)</sup>	18.98 x 20.75 x 5.20 <sup>14)</sup>
	Weight (kg)	—	4.5	4.5	13.2	13.2
	Weight (lbs)	—	9.9	9.9	29.1	29.1

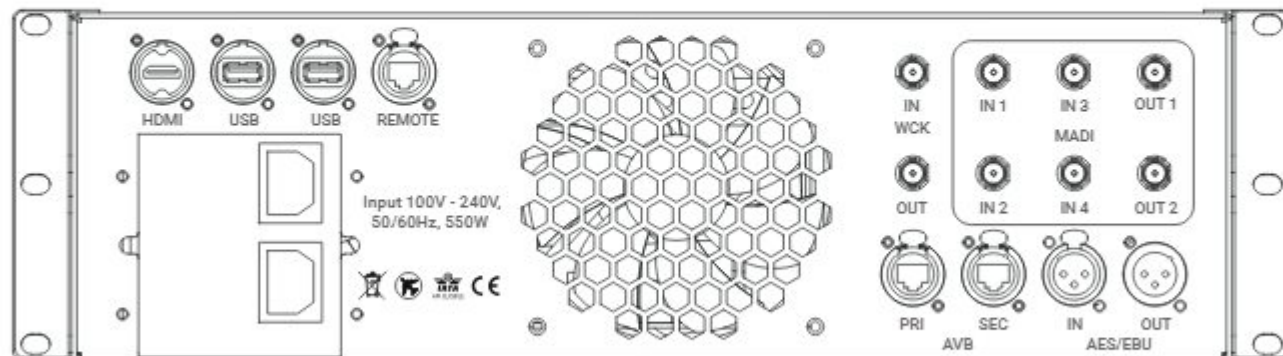
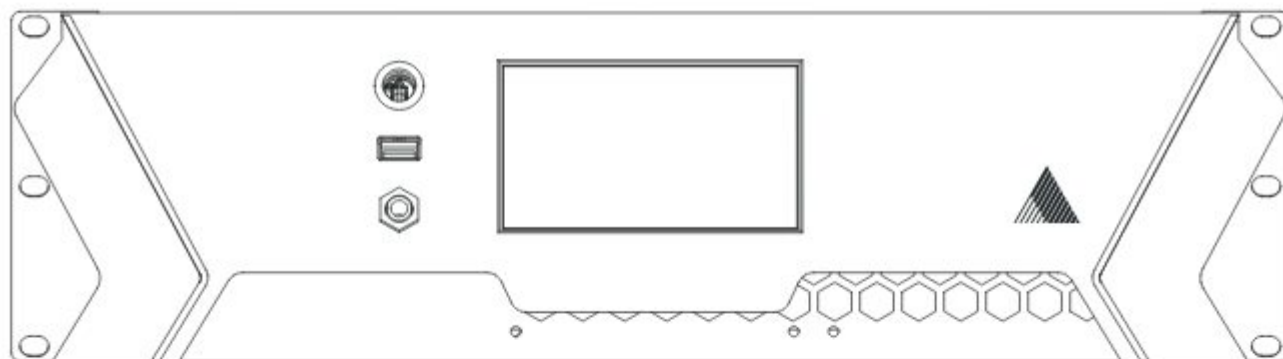
<sup>1)</sup> Small Form Factor

<sup>2)</sup> AVB / MADI version offers Phones Output

<sup>3)</sup> AVB / MADI version offers Phones Output and 1x AES3 In/Out

- <sup>4)</sup> Utilizes AES3 In/Out
- <sup>5)</sup> Max. 64 speakers per layer
- <sup>6)</sup> 3x Frontal OR 1x Frontal + 1x Surround OR 1x 3D
- <sup>7)</sup> Requires FletcherMachine (FM) Remote
- <sup>8)</sup> Dedicated Controllers available for Avid S6L and DiGiCo Quantum and SD range
- <sup>9)</sup> Tested with BlackTrax, Follow-Me, naostage, Stagetracker, zactrack
- <sup>10)</sup> MIDI (incl. HUI), OSC (incl. ADM-OSC), PosiStageNet, RTTrPM
- <sup>11)</sup> External (receive) and Internal (send), LTC and MTC, frame rate auto sensing
- <sup>12)</sup> Mounting Depth: 478 mm (18.82 in)
- \* Free of charge

## // FLETCHERMACHINE STAGE - AVB/MADI



## // FLETCHERMACHINE TRAVELER - AVB/MADI

