DSP MANAGER 2
LOUDSPEAKER MANAGEMENT SYSTEM

USER GUIDE

CONTENTS

1 | INTRODUCTION

DSP Manager is a 64Bit standalone software developed to manage loudspeaker systems for events such concerts, venues, conferences or any other kind of event which requires loudspeaker management or routing different audio sources to different pa systems.

It allows managing complex loudspeakers systems (2-way & 3-way) using a computer, soundcard, midi controller and vst/au plugins instead of a DSP hardware unit featuring crossover filters.

2 | SETUP INSTRUCTIONS

MAC:
Open DSP Manager 2.mpkg and follow installation steps.

Important: Please read "**Important info for Mac users**" pdf before launching this software.

WINDOWS:
Open DSP Manager 2 Setup.msi and follow installation steps.

3 | INPUTS

DSP Manager features 4 stereo input channels. Includes a -20dB Pad to decrease channel input levels if the level received from the soundcard inputs is too high.

Each soundcard input features a brickwall limiter to avoid clipping and distortion coming from soundcard inputs.

You can set soundcard inputs (L/R) for each DSP Manager input channel.

If you need to use a microphone just set the same soundcard input on both L/R on a DSP Manager channel, in this case the soundcard input channel used to plug in the microphone.

4 | PROCESSING MODES

DSP Manager can work on 3 different processing modes:

- **Butterworth 3rd Order Crossover**
- **Linkwitz-Riley 4th Order Crossover**
- **Matrix**: This mode allows routing DSP Manager inputs to outputs. You can assign different output channel for each input channel. This mode is useful for sending different audio sources to different listening spaces or loudspeakers systems.

Crossover Mode can run in 2 different modes:

- **2 Way Crossover** – 2 Way Loudspeaker System
- **3 Way Crossover** - 3 Way Loudspeaker System

When Crossover modes are selected crossover frequencies will be shown so you can set any crossover frequency for your loudspeaker system.

When selecting Matrix mode a pop up window will be shown to configure your matrix in/out settings.

5 | OUTPUTS

DSP Manager features 4 stereo output channels. Each output channel includes a brickwall limiter to avoid clipping and distortion.

You can set soundcard output (L/R) for each DSP Manager output channel.

Mute is available for each DSP Manager output channel, so you can check what`s coming out from each channel separately if needed. Also a general Mute is available to mute the overall sound coming out from DSP Manager (top right).

Depending which processing mode is used (Matrix/2 way/3 way) a label on the top of each channel will show sound processed by them, low freq, mid freq, high freq, monitor 1 and 2.

Monitor output can be used for external recording and monitoring. When working on 2-Way mode 2 monitor outputs are available (CH3 & CH4), when working on 3-Way mode only 1 monitor output is available (CH 4).

Monitor audio signals are taken before the crossover stage, after the input channels sum.

Each output channel features Phase Invertion, 5-Band Parametric Equalizer, HPF, LPF, independent delay compensation for L/R signals, 4 vst/au plugin sections, channel input/output meters and output routing information.

Each of the 5 EQ filters can be bypassed to check between processed and non-processed eq filter. Same for HPF and LPF.

Delay section also offers a link option to set both delays L/R to the same amount.

You can switch from inputs section to each of the 4 output sections using the top left selector and using shortcuts:

- i – Inputs Section
- 1 – Output Channel 1
- 2 – Output Channel 2
- 3 – Output Channel 3
- 4 – Output Channel 4

5.1 | PLUGINS SECTION

We strongly recommend using only zero-latency plugins (64Bits)

- **Browse.** Select your vst/au plugin.
- **View Plugin.** Click over the plugin name to show it on screen.
- **S**. Save the plug-in internal preset. (.fxp file)
- **L.** Load a plug-in internal preset (.fxp file)
- **X.** Remove plugin.

6 | RECORDING

Stereo output recording in WAV, AIFF and FLAC (16/24/32Bits).
Up to 96kHz (depending your soundcard).

> **Start.** Select the destination folder and file name. Recording will start automatically after selecting file destination.
> **Stop.** Stop recording.
> **Bit Depth:** Set the recording bit depth (16/24/32Bits)
> **Rec Source.** Set recording source.
> - **XOver Master:** This mode will record the main input used before the crossover stage when using XOver processing modes (2 way & 3 way)
> - **In 1/2/3/4:** Recording the selected input channel on Matrix mode.
>
> **IMPORTANT:** You`ll need to set recording destination folder and file name for each recording take.

7 | MIDI

Control volume faders via your midi device.

At Midi Settings choose your midi device and click on "**Setup**" to enable to midi mapping mode. To assign midi controls just select which control you want to assign and move the desired control within your midi device. To remove a midi assign just activate again midi mapping mode, right-click on the selected control you want to remove midi assign and select "Delete Mapping".

Press "**ESC**" to close midi mapping mode.

8 | PRESET MANAGER

Save and load your own presets. Including midi configuration.

> **Load.** Load a preset from your computer.
> **Save.** Save a preset on your computer
> **R.** Reset to default setup.

9 | KEYBOARD SHORTCUTS

For better and faster user experience.

CMD (mac)/CRTL (windows) – Holding this key allows changing values more accurately when tweaking any numerical display or controller.
CTRL + Q (windows) / **CMD + Q** (Mac) - Close app.
i – Inputs section
1 – Output channel 1
2 – Output Channel 2
3 – Output Channel 3
4 – Output Channel 4

10 | SETTINGS (keyboard shortcut "S")

In this section you can select your audio settings. Set up your own input/output configuration depending your soundcard and needs at anytime..

11 | SYSTEM REQUIREMENTS

Mac
Mac Intel machine running OS X 10.11.6 or later. 64 Bits. 4GB Ram Recommended.
Apple Silicon ARM machine running OS 11.0 or later. 64 Bits. 4GB Ram Recommended.

Windows
Windows 8 or later, multicore processor. 64 Bits. 4GB Ram Recommended.

Required screen resolution 1920x1080.

THANKS FOR YOUR SUPPORT!

Technical support at
support@digitalbrain-instruments.com

DIGITAL BRAIN INSTRUMENTS | http://www.digitalbrain-instruments.com