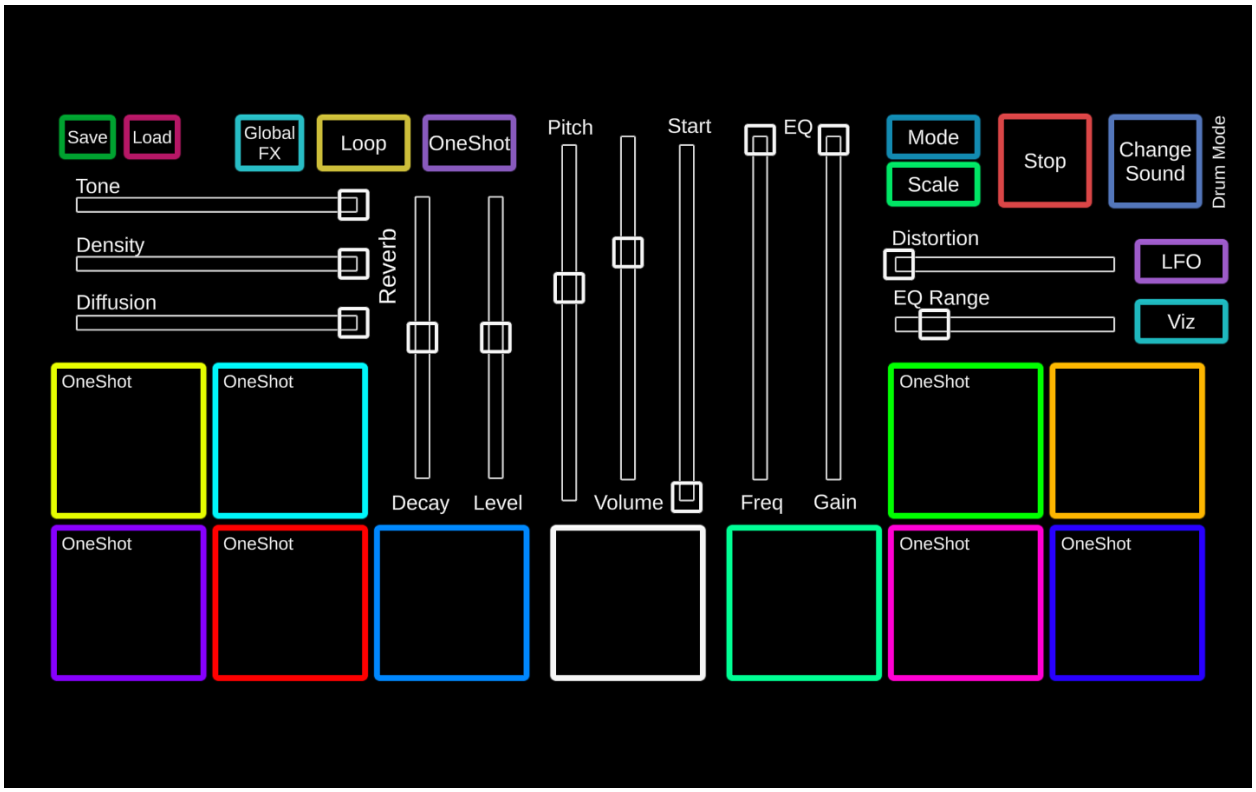
SoundSc@pes User Guide



-Use Wired Headphones or Speakers-

Bluetooth communication protocols will introduce large amounts (>100ms) of latency. Audio output will be delayed when using wireless speakers or headphones.

Pads - There are eleven colored pads. When pressed, they will play a sound. You may use a touch screen interface, midi controller (Akai MPD218), or the computer keyboard.

Keyboard - W, E, S, D, F, G, H, J, K, U , I, Space (retrigger)

Mouse - Use the mouse to control buttons and sliders

Touch - The elements onscreen are interactable

Midi - See the section on midi control for details

Volume - Controls the volume of the last sound played. When Global FX is on, it will set the volume of all sounds.

Pitch - Controls the pitch of the last sound played. When Global FX is on, it will set the pitch of all sounds.

Start / Reverse - Sets the start position of the audio sample. If set to maximum, the sample will play in reverse. **When OneShot is active, this function is disabled.**

Freq (EQ) - Sets the frequency of the global equalization effect. Use this to cut out certain audio bands in the mix

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Gain (EQ) - Controls how much of the chosen frequency band is cut out. A lower value will decrease the output.

Range (EQ) - The range of the equalizer. Larger values will cover more frequency bands.

Distortion - Sets the intensity of the global distortion effect.

Level (Reverb) - Controls the reverb volume of the last played sound. If GlobalFX is enabled, this will control the reverb volume of all sounds.

Decay (Reverb) - Sets the decay time for the reverb effect. Larger values make sounds persist for longer amounts of time. This is a global effect.

Density (Reverb) - Controls the thickness / smoothness of the reverb trails. This is a global effect.

Diffusion (Reverb) - Controls the number of simulated directions the reverb travels after it hits a reflective surface. This is a global effect.

Tone (Reverb) - Controls the tone of the reverb diffusion network. Lower values dampen high frequencies. Higher values bring them out.

Global FX - When enabled, the following functions will apply to all sounds simultaneously:

- Volume
- Pitch
- Reverb Level
- Change Sound
- Stop

Loop - Press this button to loop the last audio sample played. **When OneShot is active, this function is disabled.**

OneShot - Press this button to enable OneShot playback. When a sound is played multiple times, the first playback instance does not stop. This prevents clicking / popping artifacts from happening and can be used as a crude “delay” effect and to create large volume swells. **When OneShot is active, Loop and Start functions are disabled.**

Stop - Stops the audio playback of the last sound played. If GlobalFX is enabled, all audio playback is stopped.

Mode - This button toggles between “Drum Mode” and “Note Mode”. When note mode is activated, the sound in the white center pad is mapped to all other pads and tuned to a preset scale. When Drum mode is activated, all the sounds previously active in that mode are loaded.

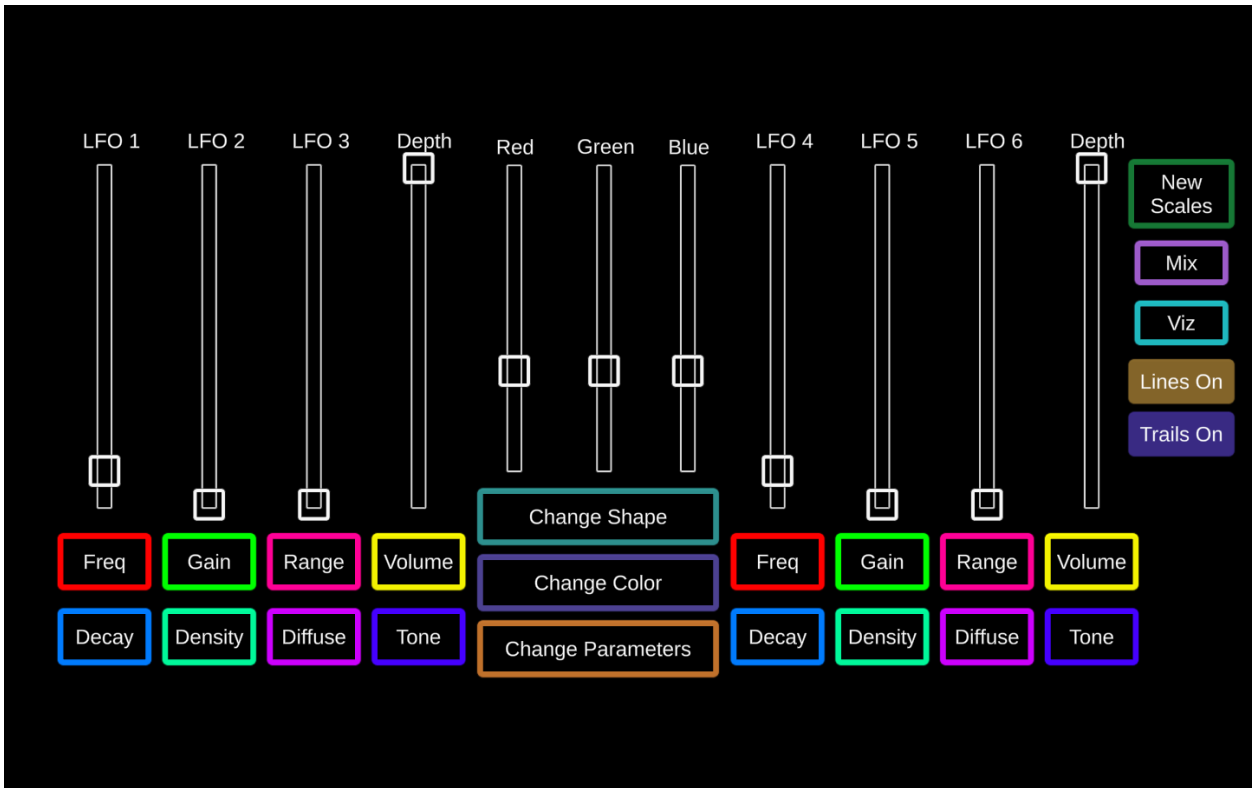
Scale - Changes the tuning of the current active scale in Melody Mode. Between 2-4 scales are selected at random at runtime. Use the “New Scales” button in the LFO bank to pick a new set of scales, also at random. **When “Drum Mode” is enabled, this button does not work.**

Change Sound - Changes the sound of the last pad played. If Global FX is enabled, all sounds will be changed.

LFO - Opens the LFO user interface.

Viz - Opens the visualization screen to see animations with minimal obstruction.

LFO User Interface



LFO 1 - There are two LFO Banks, each with three modulation sources. The LFO 1 slider sets the frequency of the first sine wave in LFO Bank 1. It is passed to the selected modulation sources. (This type of signal is called “frequency modulation”)

LFO 2 - The LFO 2 slider sets the frequency of the second sine wave in LFO Bank 1. This value is added to LFO 1 and passed to the selected modulation sources.

LFO 3 - The LFO 3 slider sets the frequency of the third sine wave in LFO Bank 1. This value is added to LFO 1 and LFO 2, then passed to the selected modulation sources.

Depth (Bank 1) - This value controls the intensity of the LFO bank modulation on the selected parameters.

LFO 4 - There are two LFO Banks, each with three modulation sources. The LFO 4 slider sets the frequency of the first sine wave in LFO Bank 2. It is passed to the selected modulation sources. (This type of signal is called “frequency modulation”)

LFO 5 - The LFO 5 slider sets the frequency of the second sine wave in LFO Bank 2. This value is added to LFO 4 and passed to the selected modulation sources.

LFO 6 - The LFO 6 slider sets the frequency of the third sine wave in LFO Bank 2. This value is added to LFO 4 and LFO 5, then passed to the selected modulation sources.

Depth (Bank 2) - This value controls the intensity of the LFO bank modulation on the selected parameters.

Freq (LFO) - Sets the Freq in the EQ as a target for the LFO modulation source.

Gain (LFO) - Sets the Gain in the EQ as a target for the LFO modulation source.

Range (LFO) - Sets the Range in the EQ as a target for the LFO modulation source.

Volume (LFO) - Sets the Volume as a target for the LFO modulation source.

Decay (LFO) - Sets the Reverb Decay as a target for the LFO modulation source.

Density (LFO) - Sets the Reverb Density as a target for the LFO modulation source.

Diffusion (LFO) - Sets the Reverb Diffusion as a target for the LFO modulation source.

Tone (LFO) - Sets the Reverb Tone as a target for the LFO modulation source.

Red - Controls the intensity of the color red when picking a new visual element.

Green - Controls the intensity of the color green when picking a new visual element.

Blue - Controls the intensity of the color blue when picking a new visual element.

Change Shape - Changes the shape of the audio reactive visuals elements.

Change Color - Changes the color of the audio reactive visuals elements using the values of the Red, Green, and Blue sliders.

Change Parameters - Changes what frequency or amplitude bands that the audio reactive elements respond to. Also adjusts the speed and responsiveness of the trail animations.

New Scales - Picks a new set of musical scales for the Melody Mode / Scale button.

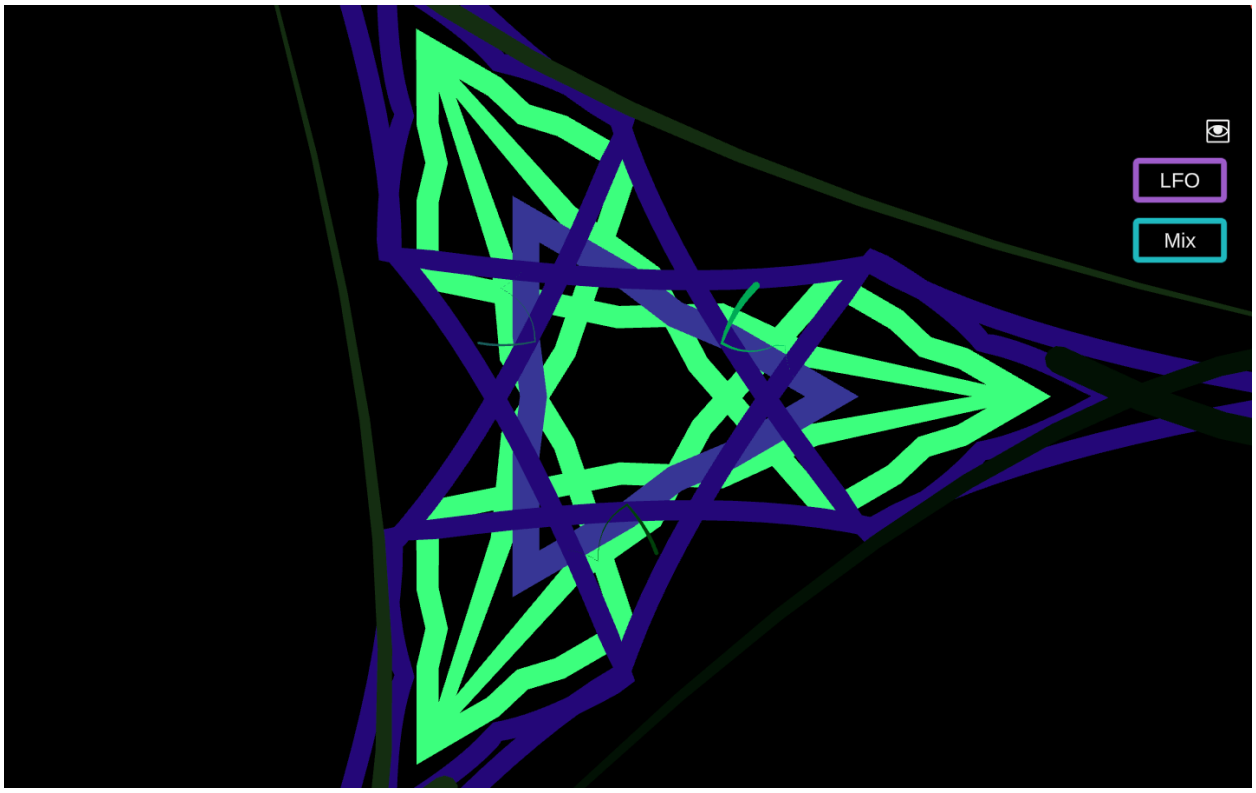
Lines On - Turn off the Line elements of the visualizer. This will save processing overhead / battery life.

Trails On - Turn off the Trail elements of the visualizer. This will save processing overhead / battery life.

Viz - Opens the visualization screen to see animations with minimal obstruction.

Mix - Opens the Mix screen to access the main sound design user interface.

Visualization User Interface



Mix - Opens the Mix screen to access the main sound design user interface.

LFO - Opens the LFO user interface.

Button Toggle - Hides the LFO and Mix buttons to minimize obstruction of the visualization.

Save / Load User Interface



Save - Opens save screen. Use the slider to select a save slot and click the “Save” button to save the current state. This will save all sounds, individual parameters, and LFOs. It does not save the visualizer state.

Load - Opens load screen. Use the slider to select a save slot and click the “Load” button to load the current state. This will load all sounds, individual parameters, and LFOs. It does not load the visualizer state.

Back - The back button will exit the save / load screens and return to the mix page.

Exit - The exit button is available in the save and load screen. Selecting the exit button will bring up a prompt to exit the application. In this prompt, push “Yes” to exit the application.

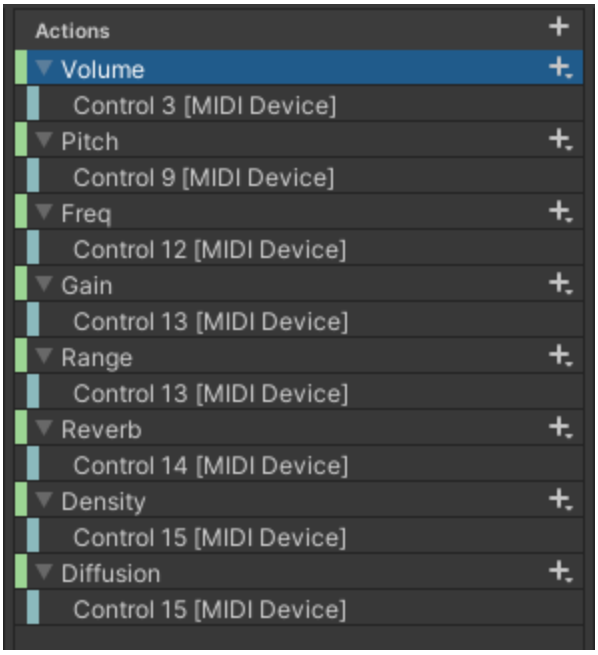
Midi Controller Mapping

Soundsc@pes offers support for the Akai MPD218 Midi controller, as well as partial support for many other devices with the midi control mappings listed below.

***Important* - Turn off aftertouch on your USB Midi hardware. These messages will overfill the input buffer and cause large latency spikes**


Actions
EightOEight
Note C2 [MIDI Device]
Kick
Note C#2 [MIDI Device]
Clap
Note E2 [MIDI Device]
Snare
Note F2 [MIDI Device]
Perc
Note D#2 [MIDI Device]
Hats
Note D2 [MIDI Device]
Vocal
Note A#2 [MIDI Device]
Chord
Note F#2 [MIDI Device]
Ambient
Note G2 [MIDI Device]
Drums
Note G#2 [MIDI Device]
Synth
Note A2 [MIDI Device]
Stop
Note B2 [MIDI Device]
Change Sound
Note D#3 [MIDI Device]
Mode
Note D3 [MIDI Device]
Change Scale
Note C#3 [MIDI Device]
Change Fractal
Note C3 [MIDI Device]

Pad Bank 1



Knob / Slider Bank 1


Actions
FreqLFO1
Note E4 [MIDI Device]
GainLFO1
Note F4 [MIDI Device]
RangeLFO1
Note F#4 [MIDI Device]
DecayLFO1
Note C4 [MIDI Device]
DensityLFO1
Note C#4 [MIDI Device]
DiffusionLFO1
Note D4 [MIDI Device]
VolumeLFO1
Note G4 [MIDI Device]
ToneLFO1
Note D#4 [MIDI Device]
FreqLFO2
Note G#3 [MIDI Device]
GainLFO2
Note A3 [MIDI Device]
RangeLFO2
Note A#3 [MIDI Device]
DecayLFO2
Note E3 [MIDI Device]
DensityLFO2
Note F3 [MIDI Device]
DiffusionLFO2
Note F#3 [MIDI Device]
VolumeLFO2
Note B3 [MIDI Device]
ToneLFO2
Note G3 [MIDI Device]

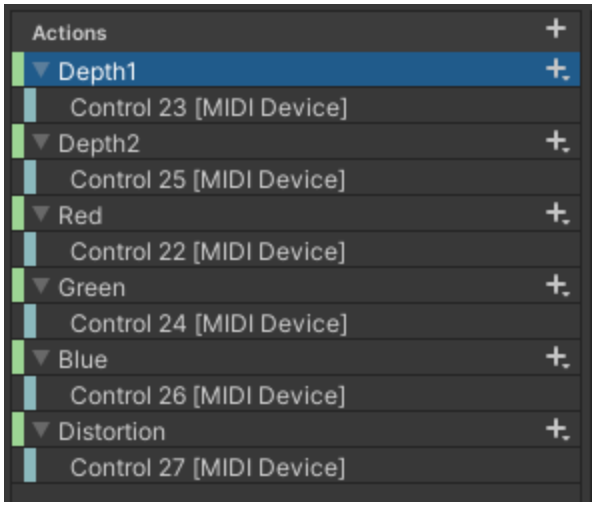
Pad Bank 2



Knob / Slider Bank 2


Actions
EightOEight
Note G#4 [MIDI Device]
Kick
Note A4 [MIDI Device]
Clap
Note C5 [MIDI Device]
Snare
Note C#5 [MIDI Device]
Perc
Note B4 [MIDI Device]
Hats
Note A#4 [MIDI Device]
Vocal
Note F#5 [MIDI Device]
Chord
Note D5 [MIDI Device]
Ambient
Note D#5 [MIDI Device]
Drums
Note E5 [MIDI Device]
Synth
Note F5 [MIDI Device]
Stop
Note G5 [MIDI Device]
Change Color
Note G#5 [MIDI Device]
Oneshot
Note A5 [MIDI Device]
Loop
Note A#5 [MIDI Device]
GlobalFX
Note B5 [MIDI Device]

Pad Bank 3



Knob / Slider Bank 3