

## PATCH NOTES

The PureData patch we have created is designed to interact with our new Unity game, **Endless 2D**, a 2D side-scrolling endless runner. The patch consists of two main components: Music and sound effects.

### **MUSIC**

The music consists of a drum beat with several accompanying instruments. The drums are interpreted from text files which were generated (by iterating an L system) in python with varying rule sets. The keyboard voices were just hand sequenced and are tied to the sequencing of the drums.

High level parameters for the music can be controlled in the base of **Master.pd**, and more specific control is contained in the mixer subpatch. Most other controls are naturally automated and more complex to control.

Currently the drums will slowly enter as the game begins (and stop when paused/over), the tempo of the song increases with time, and there are game events which trigger the sound effects below. We are hoping to elaborate more on the communication between the player, scene and audio beyond these triggers in the future.

### **SFX**

The following sound effects, created by Emersen, are supported:

- Jumping sound
- Damage sound
- Death sound
- Spawn (enemies) sound

In the base of **Master.pd**, there is a “soundeffects” subpatch which contains all of these sounds which can be tested with a simple trigger.

Both the music and sound effects are triggered by Unity scripts through the use of the UnityOSC library.

**Master.pd requires no libraries or externals.**

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## **RUNNING THE GAME**

To begin using the PureData patch with **Endless 2D**, simply open the **Master.pd** file in the **Pd-Files** folder and (DSP is automatically enabled). Then, run the latest build of **Endless 2D** in the Unity Editor.

The game supports the following controls:

<b>Button (PC/Xbox)</b>	<b>Trigger</b>
Space / A	Jump
Enter / Start	Start the game/restart
m / Option	Toggle music