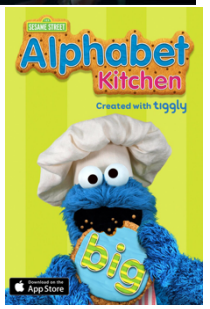
GDC
Audio Bootcamp XVII: Adding Punch To Your Sound
Gina Zdanowicz
Sound Designer, Composer
Serial Lab Studios
GAME DEVELOPERS CONFERENCE | MARCH 19-23, 2018 | EXPO: MARCH 21-23, 2018 #GDC18
UBM

ABOUT ME

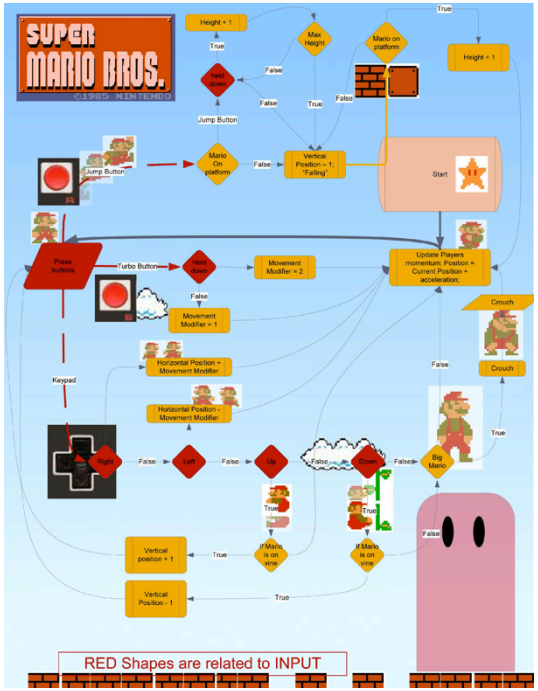
- Sound Designer / Composer / Dialogue Producer for Games, VR/AR, Film, TV
- Berklee College of Music Graduate and Founder of Serial Lab Studios
- 12 years in the Game Audio Industry with over 100 game credits
- 2014 Daytime Creative Arts Emmy Award Nominee
- Game Audio Instructor / Lecturer



JABii
JABii.com

TAKE AWAY

CHALLENGES



Challenges in Game Audio

Non-Linear / Interactive

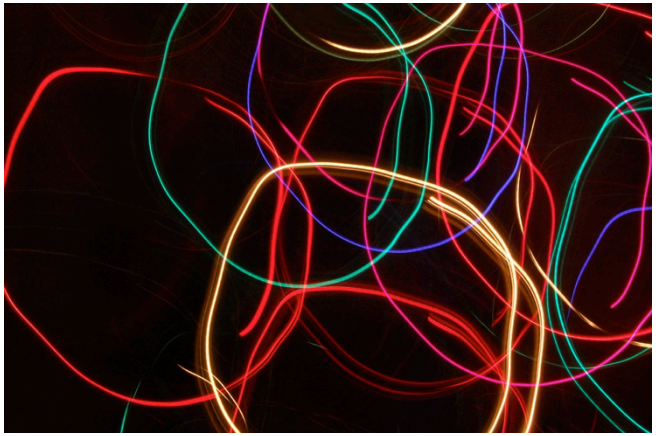
CHALLENGES

Challenges in Game Audio (continued)

Cutting through the mix

SOLUTIONS

Adding Punch to sound design and music



Creating movement or modulation
in sound design

DEFINING PUNCH

Punch by definition

The power to impress or startle

Something that strikes you

TRANSLATING TO SOUND

How do you translate that so it relates to sound?

A signal with a predominant attack

A sound that "hits" you

WHY PUNCH?

Why is it important in Game Audio?

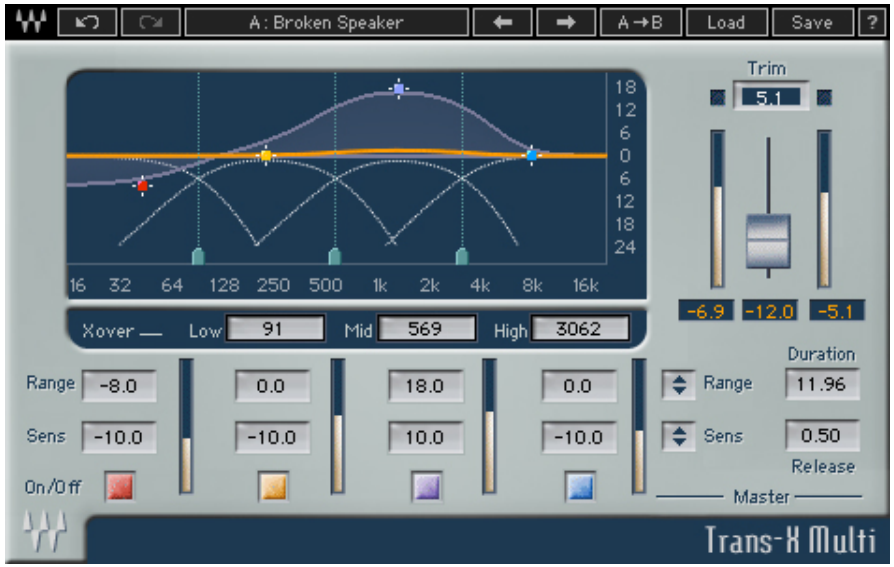
Powerful Explosions, Weapon Fire & Impacts

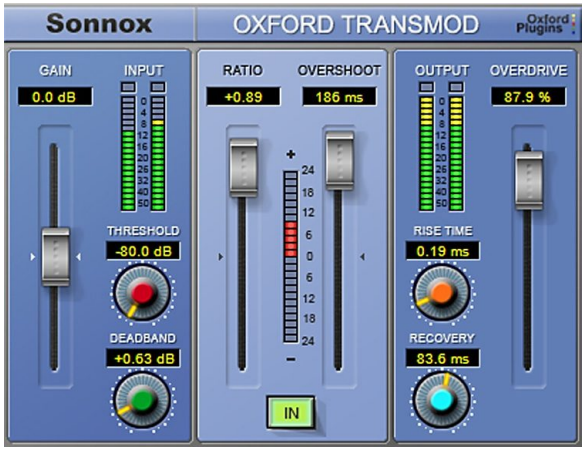
More dynamics in your interactive mix

TOOLS

What tools can help me add punch?

Transient Shapers





TRANSIENT SHAPER

Sci-Fi Gun Fire Without TransX

Sci-Fi Pistol Gun Fire With TransX

TRANSIENT SHAPER

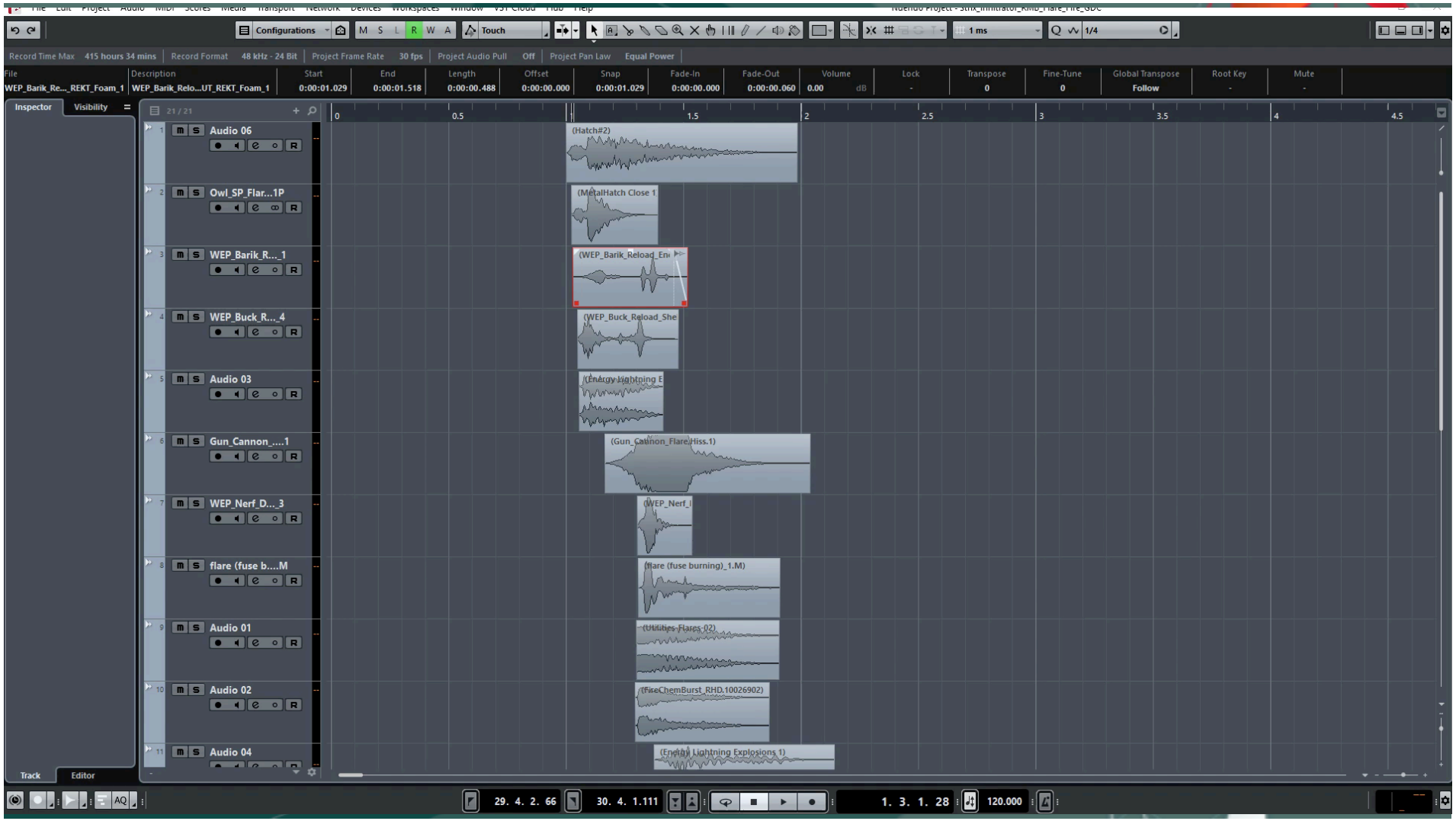
Rifle Fire Without TransX

Rifle Fire With TransX

TRANSIENT SHAPER

Flare Gun Fire With TransX

Flare Gun Fire Without TransX


Configurations
Touch
Record Time Max 415 hours 34 mins
Record Format 48 kHz - 24 Bit
Project Frame Rate 30 fps
Project Audio Pull Off
Project Pan Law Equal Power
Inspector
Visibility
Audio 06
Owl_SP_Flar...1P
WEP_Barik_R..._1
WEP_Buck_R..._4
Audio 03
Gun_Cannon_...._1
WEP_Nerf_D..._3
flare (fuse b...._M
Audio 01
Audio 02
Audio 04
(Hatch#2)
(MetalHatch Close 1
(WEP_Barik_Reload_En
(WEP_Buck_Reload_She
(Energy Lightning E
(Gun_Cannon_Flare_Hiss.1)
(WEP_Nerf_I
(flare (fuse burning)_1.M)
(Utilities-Flares-02)
(FireChemBurst_RHD.10026902)
(Energy Lightning Explosions 1)
Track
Editor
29. 4. 2. 66
30. 4. 1.111
1. 3. 1. 28
120.000

MUSIC

How can punch change music?

SnowKing Music

Octave duplication

Choice of instruments

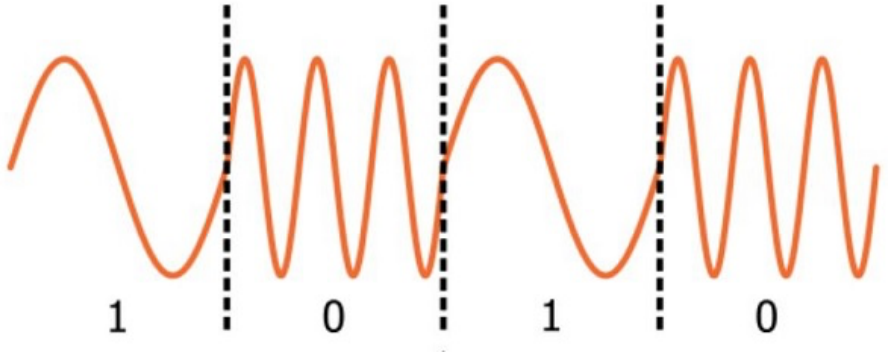
Transient designer on a percussion bus

9%
100%
100%
0%
82%
2/4
4:48
0/4
3%
11%
9
10
CAPTURE
3/6
SLAYED
30
2500/2500
6
STREAK
Ashblue
248
Pop Fly

MOVEMENT

Modulation by definition

variation in the strength, tone, or pitch



WHY MOVEMENT?

Why is it important in Game Audio?

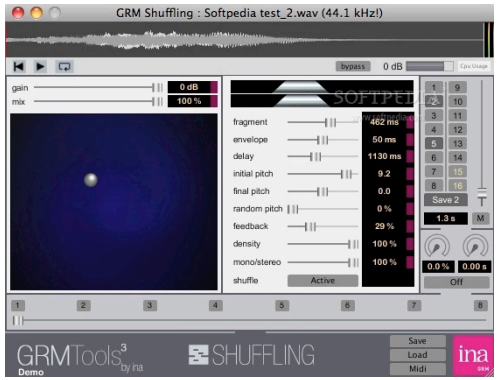
Creating movement in sound design or music can help a sound stand out in a mix

Provides hard to pick up flat tones an ability to be recognized spatially

TOOLS

What tools can help me add movement?

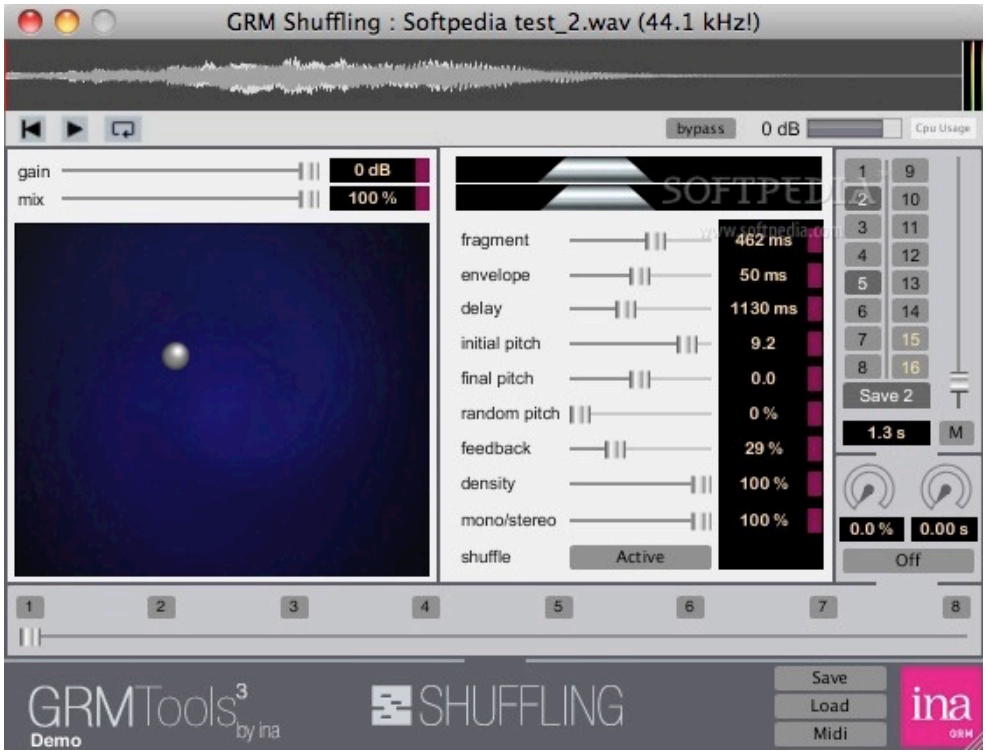
Tremolo
Frequency Shifter
Shuffling



TREMOLO

Tremolator
Rhythmic Amplitude Modulation
soundtoys
Depth
Min
Max
Groove
Shuffle
Swing
Feel
Rushin
Draggin
Accent
Sync
Max
Shape
Premier
Mod
Rhythm
1/8th
Rate
MIDI
30 BPM
240 BPM
Tap Tempo
120.0 bpm
Input
-24
+24
Output
-24
+24
Tweak

SHUFFLING

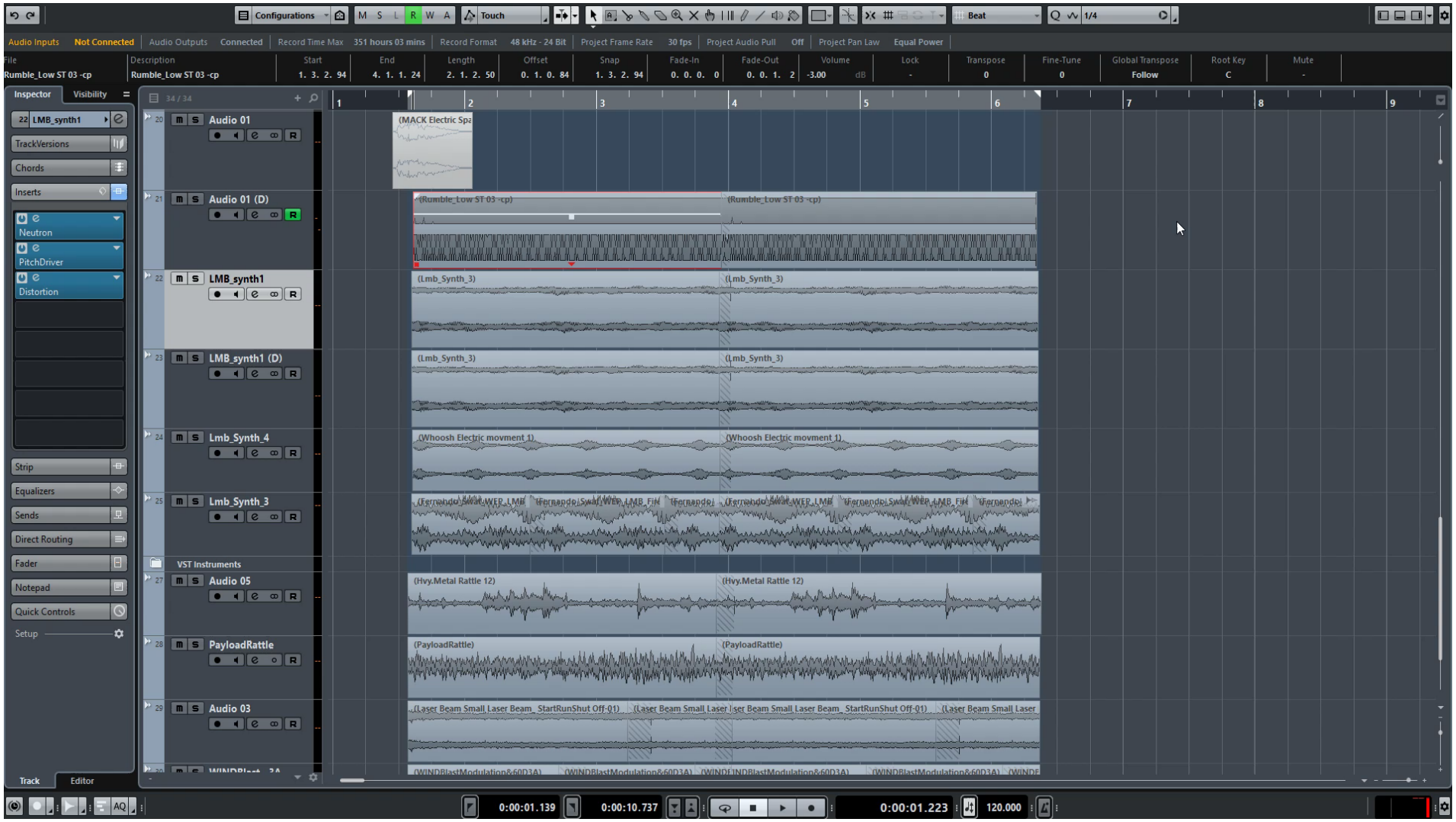

GRM Shuffling : Softpedia test_2.wav (44.1 kHz!)
bypass
0 dB
gain
0 dB
mix
100 %
fragment
462 ms
envelope
50 ms
delay
1130 ms
initial pitch
9.2
final pitch
0.0
random pitch
0 %
feedback
29 %
density
100 %
mono/stereo
100 %
shuffle
Active
Save 2
1.3 s
M
0.0 %
0.00 s
Off
GRMTools3 by ina
Demo
SHUFFLING
Save
Load
Midi
ina GRM

FREQ SHIFTING

MOVEMENT

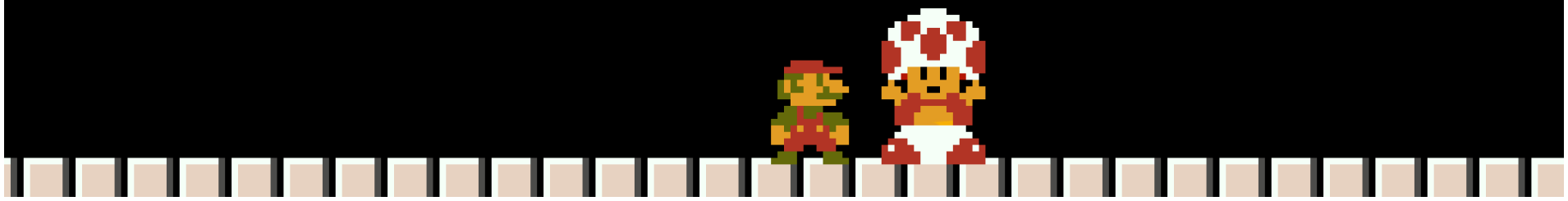
Example of a weapon loop without added movement

Example of a weapon loop with added movement


Configurations
Touch
Beat
1/4
Audio Inputs Not Connected
Audio Outputs Connected
Record Time Max 351 hours 03 mins
Record Format 48 kHz - 24 Bit
Project Frame Rate 30 fps
Project Audio Pull Off
Project Pan Law Equal Power
File
Description
Start
End
Length
Offset
Snap
Fade-In
Fade-Out
Volume
Lock
Transpose
Fine-Tune
Global Transpose
Root Key
Mute
Rumble_Low ST 03 -cp
1. 3. 2. 94
4. 1. 1. 24
2. 1. 2. 50
0. 1. 0. 84
1. 3. 2. 94
0. 0. 0. 0
0. 0. 1. 2
-3.00 dB
Follow
C
Inspector
Visibility
22 LMB_synth1
TrackVersions
Chords
Inserts
Neutron
PitchDriver
Distortion
Strip
Equalizers
Sends
Direct Routing
Fader
Notepad
Quick Controls
Setup
Track
Editor
Audio 01
Audio 01 (D)
LMB_synth1
LMB_synth1 (D)
Lmb_Synth_4
Lmb_Synth_3
VST Instruments
Audio 05
PayloadRattle
Audio 03
(MACK Electric Spa
(Rumble_Low ST 03 -cp)
(Lmb_Synth_3)
(Whoosh Electric movment 1)
(Hvy.Metal Rattle 12)
(PayloadRattle)
(Laser Beam Small Laser Beam_ StartRunShut Off-01)
0:00:01.139
0:00:10.737
0:00:01.223
120.000

THANK YOU MARIO!

BUT OUR PRINCESS IS IN ANOTHER CASTLE!



seriallab.com

@seriallab

sounddesign@seriallab.com

facebook.com/seriallabstudios