



MAX

SysBas 1A | 10 september | Les 1

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Creative Coding

The background is a complex, dark, and textured surface. It features a dense, repeating pattern of small, light-colored triangles that create a 3D effect, similar to a woven fabric or a textured wall. Overlaid on this is a faint, glowing circular pattern that resembles a stylized 'C' or a circular path, possibly representing a coding loop or a creative process. The overall aesthetic is technical and artistic.

Creative Coding

is een vorm van programmeren
met als doel iets expressiefs te creëren,
i.t.t. iets functioneels.

Programmeertalen

C++ JavaScript Python Java Processing C
Scheme Lisp Reaktor Super-Collider Objective-C PHP HTML... etc.
en Max

**Welke taal je gebruikt hangt af van
de toepassing en context**



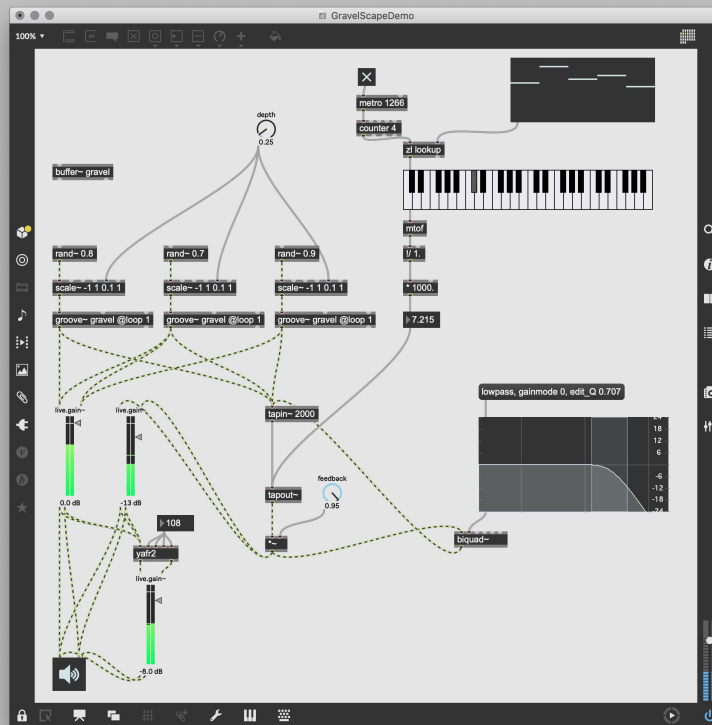
Max

Visuele Programmeeromgeving

Max wordt ontwikkeld door Cycling'74

<https://cycling74.com>

Demonstratie



Toepassingen

Studio / Productie

The image displays a DAW interface with four mixer channels and a Convolution Reverb plugin window.

Mixer Channels:

- Channel 1:** MIDI From: All Ins; All Channels: All Channels; Monitor: In Auto Off; Audio To: Master.
- Channel 2:** MIDI From: All Ins; All Channels: All Channels; Monitor: In Auto Off; MIDI To: No Output; Audio To: Master.
- Channel 3:** Audio From: Ext. In; Ext. In: 1; Monitor: In Auto Off; Audio To: Master.
- Channel 4:** Audio From: Ext. In; Ext. In: 2; Monitor: In Auto Off; Audio To: Master.

Convolution Reverb Plugin:

- Decay:** 100 %
- Size:** 100 %
- Predelay:** 0.00 ms
- Type:** 01 Real Places
- IR:** Arundel Nave
- Decay Time:** 5.27 sec
- EQ:** Three frequency sliders at 100, 1K, and 10K Hz, all set to 0.0 dB gain.
- Width:** 100 %
- Gain:** 0.0 dB
- Dry/Wet:** 50.0 %

On the left side of the Convolution Reverb window, there is a text prompt: "Drop Instrument Here".

Sound Design / Instrumenten

Track 1-Pallas

PALLAS Semi-Modular Synthesizer

SHOW MOD

OSC1 Semi OscMix Level

OSC2 Semi OscMix KeyTrack Level

LFO 1 Sync Shape Rate **LFO 2** Sync Shape Rate **OSC 3** FM 0.00 High Semi CS80.wav Level Fine Position Intensity

ADSR MULTI Loop Velocity Curve 50% FILTER Loop Velocity Curve 50%

MACRO 1-4 5-8 MIDI Voices 4 Unison Spread Pitch Glide 0 P/Bend Range +5 st Gate Vel. Mod Aftert. CC 2-Breath

OSCILLATOR Analogue Feel 10% 1 Pitch 2 Pitch 3 Pitch FM PW Color Noise Level Out LFO 1 Rate Trig 2 Rate Trig 3 Rate Trig AMP ENV FLT ENV MULTI ENV Trig Out Trig Out

FILTER 1 Mix Cutoff Q BP HP +VOC Formant Env Drive 48.8% Comb Routing **FILTER 2** Morph Cutoff Q BP HP LP NT

SCOPE Phase Spectrum

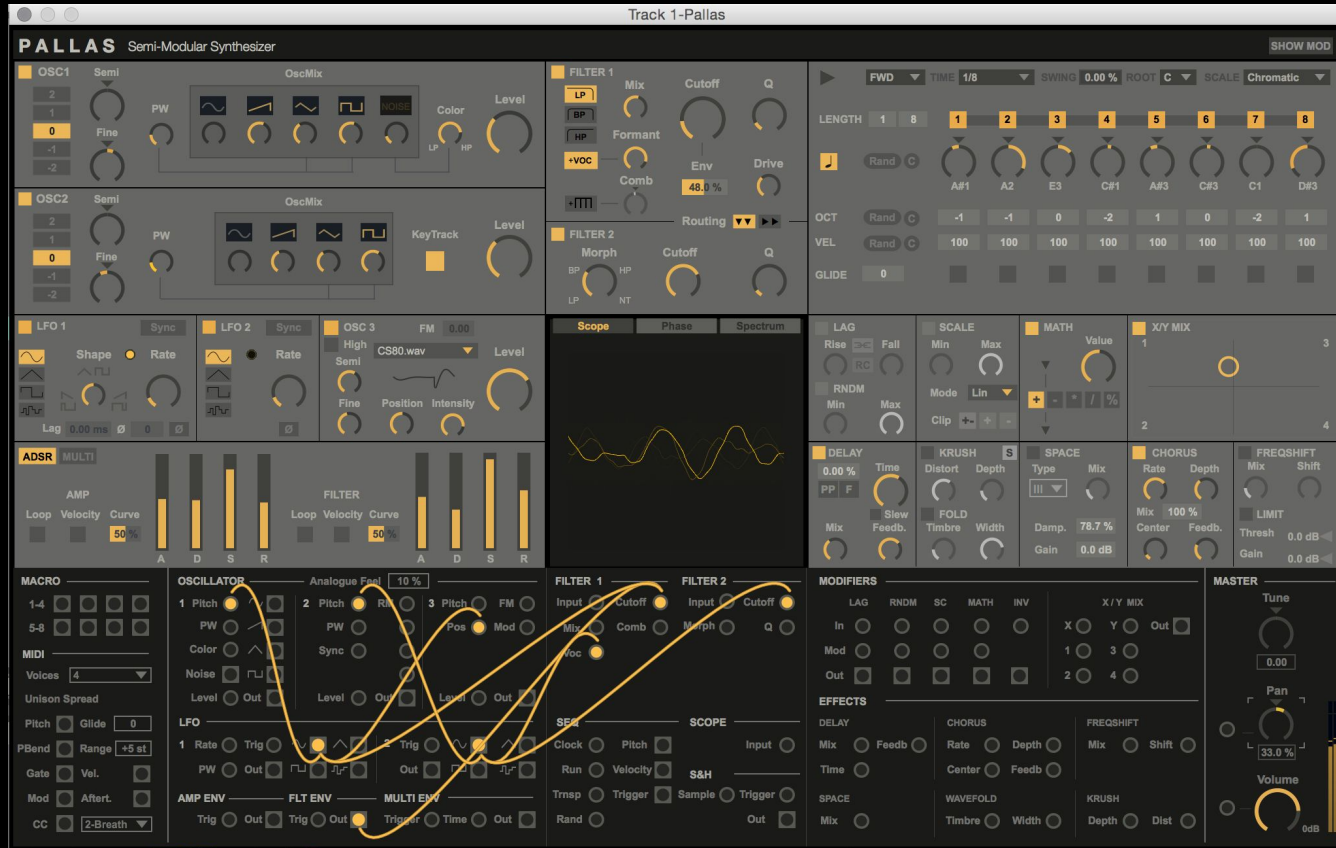
DELAY 0.00 % Time PP F Slew Feedb. Mix **KRUSH** S Distort Depth FOLD Timbre Width **SPACE** Type Mix Damp. 78.7 % Gain 0.0 dB **CHORUS** Rate Depth Mix 100 % Center Feedb. **FREQSHIFT** Mix Shift LIMIT Thresh 0.0 dB Gain 0.0 dB

LAG Rise Fall RC **SCALE** Min Max Mode Lin Clip **MATH** Value **X/Y MIX** 1 3 2 4

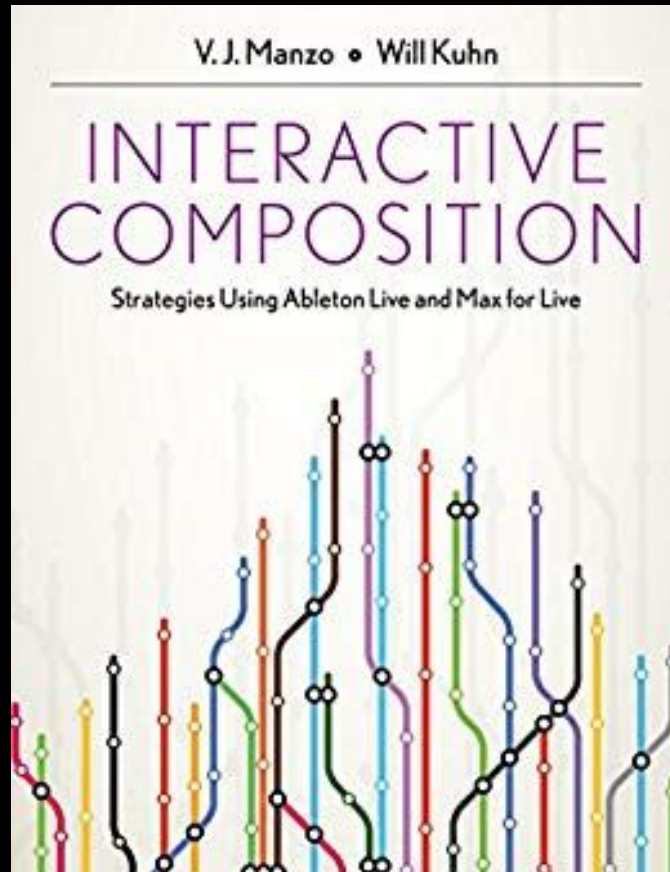
MODIFIERS LAG RNDM SC MATH INV X/Y MIX In Mod Out 1 3 2 4

EFFECTS DELAY Mix Feedb. CHORUS Rate Depth Mix Shift Time Center Feedb. SPACE WAVEFOLD KRUSH Mix Timbre Width Depth Dist

MASTER Tune 0.00 Pan 33.0 % Volume 0dB



Composite



Sensors



leapmotion.maxhelp (root) Gestures fingers

leapmotion

Interface to the Leapmotion.
v0.1 | Based on Leap Motion SDK V2.1.4 Tracking Beta.

<http://www.leapmotion.com/>
<https://developer.leapmotion.com/>

qmetro 10

leapmotion

end frame

p visu

gestures

p Gestures

fingers

p fingers

hands

p hands

s right-hand-id

s left-hand-id

frame info

unpack 0 0 0

465042

-1383103006

2

frame id

timestamp

numhands

begin frame

right hand select hand

type	right									
confidence	0.92									
numfingers	5									
numtools	0									
grabstrength	0.00									
pinchstrength	0.00									
palmwidth	86.57									
basis	0.78	-0.38	-0.49	0.59	0.70	0.40	0.19	-0.61	0.77	
direction	-0.19	0.61	-0.77							
palmposition	92.04	178.40	-7.14							
palmvelocity	0.25	-0.06	-0.01							
palmnormal	-0.59	-0.70	-0.40							
wristposition	108.67	145.87	29.76							
elbowposition	213.80	-23.76	191.51							
spheredcenter	-5.58	73.84	-82.53							
spheredradius	166.09									
translationpro	0.33									
translation	0.00	0.00	0.00							
scaleprobabilit	0.39									
scalefactor	1.00									
rotationproba	0.28									
rotationangles	0.00	0.00	0.00							

jit.pwindow: Show data in a patcher



Interactieve Installaties

Live Performance



Hardware

**‘of course,
since the programming is in Max
you can do pretty much
whatever you want with it’**

https://www.youtube.com/watch?v=KN_Z4N5fxpE

Context

- Artistiek
- Sociaal
- Wetenschappelijk
- Commercieel

**Wat heb je eraan
als je niet zelf gaat programmeren?**

je wordt

Professioneel Muziektechnoloog

en hebt

**Begrip van, en Communicatie met
verschillende Disciplines**

Deze lesreeks

Eerste Semester

- Tot de roostervrije week : Introductie en basis logica
- Tot Kerst : Algoritmen met MIDI

Tweede Semester

- Audio en connectie met Hardware

Practicum

- Max installeren
- Wegwijs in de patcher window
- Eerste objecten met een beetje MIDI