

VA336/546 interactive sound

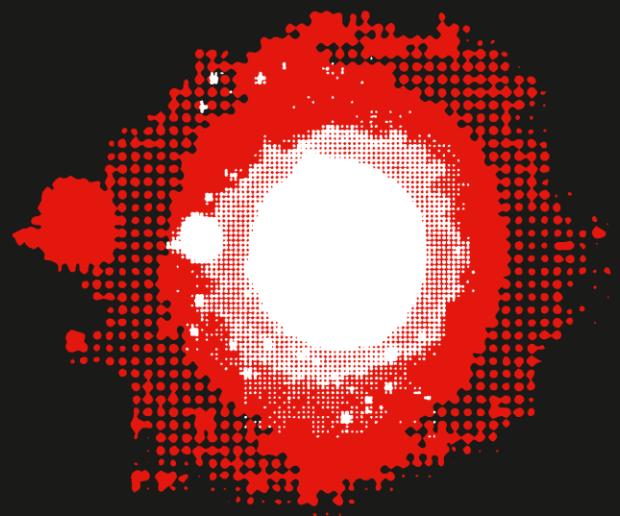
Week 8

Sound Generating Methods – Sampling

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DYSTOPIE DISTOPYA

30 Ekim – 3 Kasım 2019
İTÜ MIAM Galeri (ve SES YÜRÜYÜŞÜ) Maçka / kasa Galeri, Karaköy

30 Ekim 2019 saat 19:00
Sergi Açılış Günü Performansları, İTÜ MIAM Galeri, Maçka

31 Ekim 2019 saat 20:00
Hezarfen Ensemble ile elektroakustik konser, Bahçeşehir Üniversitesi,
Beşiktaş Kampüsü – B Konferans Salonu

3 Kasım 2019 saat 19:00
algorave, Arka Oda, Kadıköy

www.dystopie-festival.net

A big thank you
for all!

SOUÑD PORTS

KOZMİK BİRLİKTELİK



ŞEHRİN BAĞIMSIZ
MÜZİK, SANAT, KÜLTÜR FESTİVALİ

8-9-10 KASIM 2019

Zimoun

Zimoun lives and works in Bern, Switzerland. His work has been presented internationally. Recent displays of his work include exhibitions at the Museum of Contemporary Art MAC Santiago de Chile; Nam June Paik Art Museum Seoul; Kuandu Museum Taipei; Ringling Museum of Art Florida; Mumbai City Museum; National Art Museum Beijing; LAC Museum Lugano; Seoul Museum of Art; Museum MIS São Paulo; Kunsthalle Bern; Taipei Fine Arts Museum; Le Centquatre Paris; Museum of Contemporary Art Busan; Museum of Fine Arts MBAL; Kunstmuseum Bern; among others.



Zimoun



Assignment Review

Design a Max patch that plays randomly selected note in C Major Scale and plays in quarter, half, whole note intervals on an additive synthesizer

Use midi notes, variable tempo

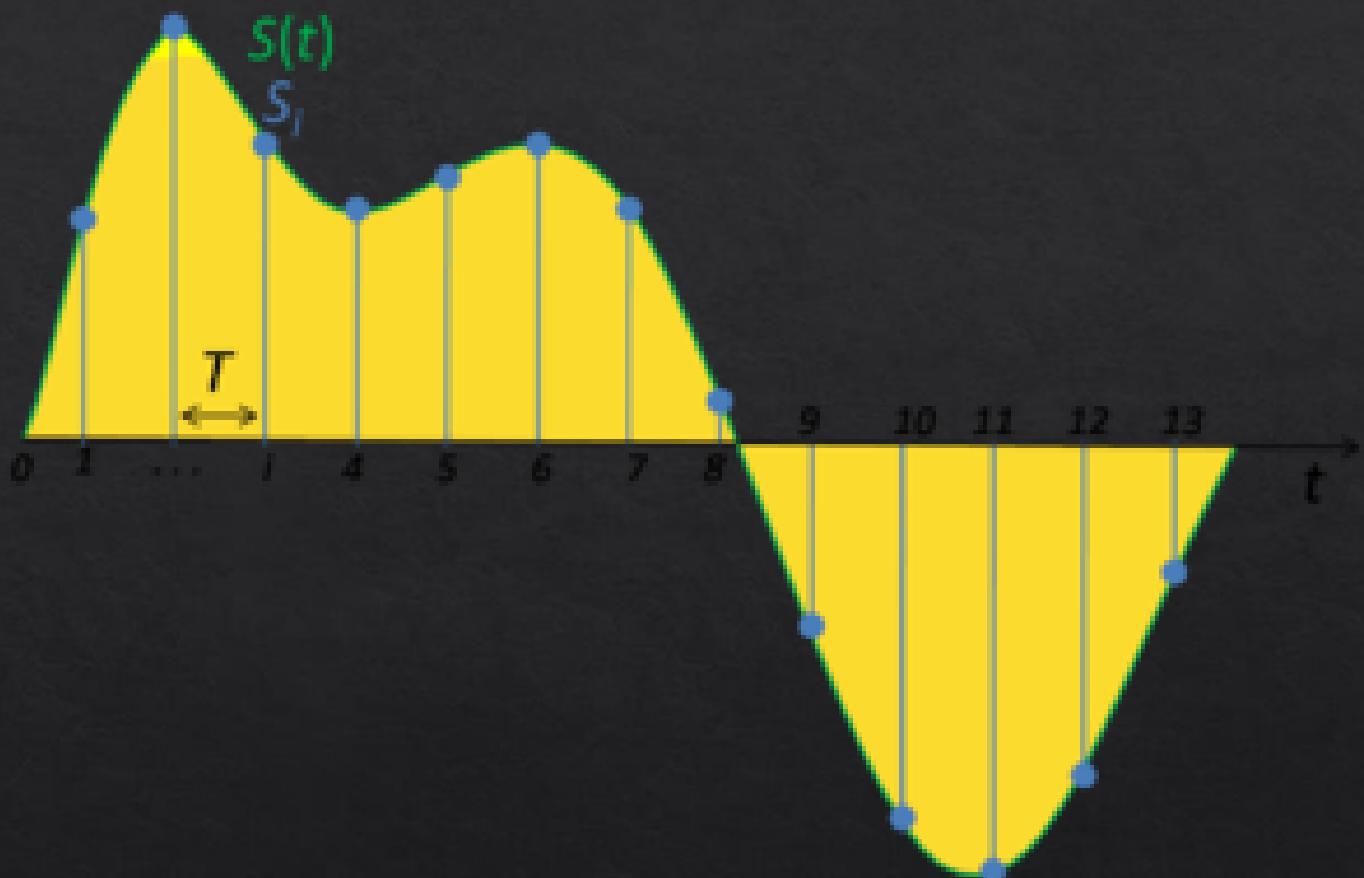
How about sampling?

Sampling: In signal processing, sampling is the reduction of a continuous-time signal to a discrete-time signal.

A sample is a value or set of values at a point in time and/or space.

A sampler is a subsystem or operation that extracts samples from a continuous signal.

Buffer: The amount of data allocated for processing an audio



Sample Libraries in Use

BBC SYMPHONY ORCHESTRA

SPITFIRE AUDIO

NEW

\$999 \$749

BBC SYMPHONY ORCHESTRA

A UNIVERSAL STARTING POINT

In partnership with BBC Studios and the world-famous BBC Symphony Orchestra, Spitfire Audio has finally been able to capture what no other sample library has before: a family of astoundingly accomplished players that has shared the stage for thousands of hours, whose musical telepathy and 90-year heritage of performances and recordings is a national and international treasure. BBC Symphony Orchestra has been expertly recorded by the Spitfire team at London's famous Maida Vale Studios — home of the BBCSO, and host to The Beatles, Hendrix and Bowie. Our most expansive and ambitious project to date, this landmark library is the stuff of composing dreams: strings, brass, woodwind and percussion, all housed inside our award-winning standalone plugin.

Introductory offer ends November 7th.

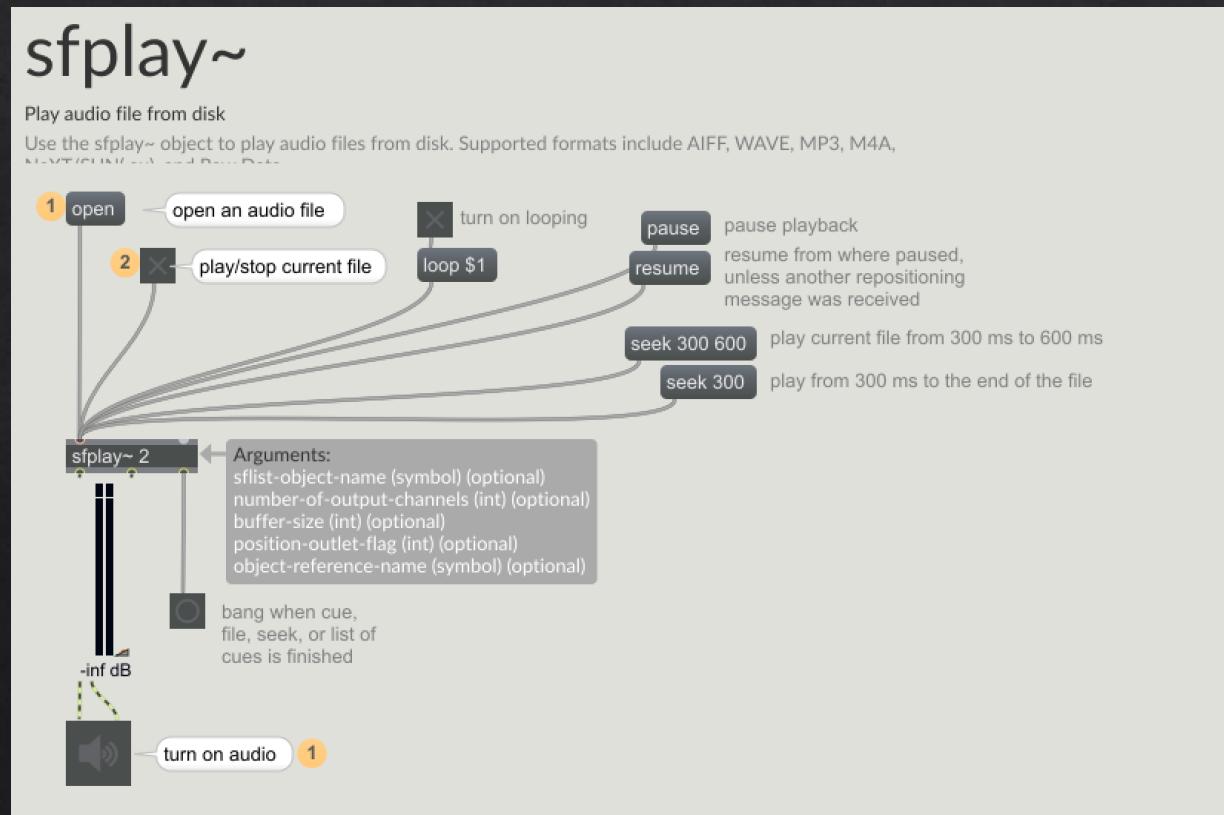
[ADD TO WISH LIST](#)

[ADD TO CART](#)

[GO TO CART](#)

sfplay~

sfplay~ plays AIFF, NeXT/SUN(.au), WAVE, and Raw Data files of 1-32 tracks from disk.



playlist~

Organize sets of soundfiles and play them back

playlist~

Play sound files

Use playlist~ to organize sets of soundfiles and play them back. Each sound is given a visual representation in a clip where a selection from the entire sound file may be chosen. Clips may be dragged within a playlist~ to re-order them, or they maybe dragged to other playlist~ objects by using the handle (dot) on the left side of the clip.

The patch interface includes:

- A vertical list of audio clips with their names: "vibes-a1.aif", "sho0630.aif", "drumLoop.aif", "cherokee.aif", "cello-f2.aif", "jongly.aif", and "anton.aif". Each clip has a play button icon and a waveform visualization.
- A horizontal slider labeled "live.gain~" with a value of "0.0 dB".
- A small volume icon at the bottom left.
- Four callout boxes with instructions:
 - "create a playlist~": "drag one or more files from Max's browser or your filesystem onto a blank spot in a patcher."
 - "add files to playlist~": "drag one or more files from Max's browser, your filesystem, or even another playlist~ onto an existing playlist~ object."
 - "remove a clip from playlist~": "right-click on a clip to get the contextual-menu. then choose \"Remove\""
 - "rearrange clips in playlist~": "click and drag the handle (dot on the left side) up or down to move clip to another location in the list."

In class Challenge

Generate a random number announcer

you will be provided with numbers spelled recordings

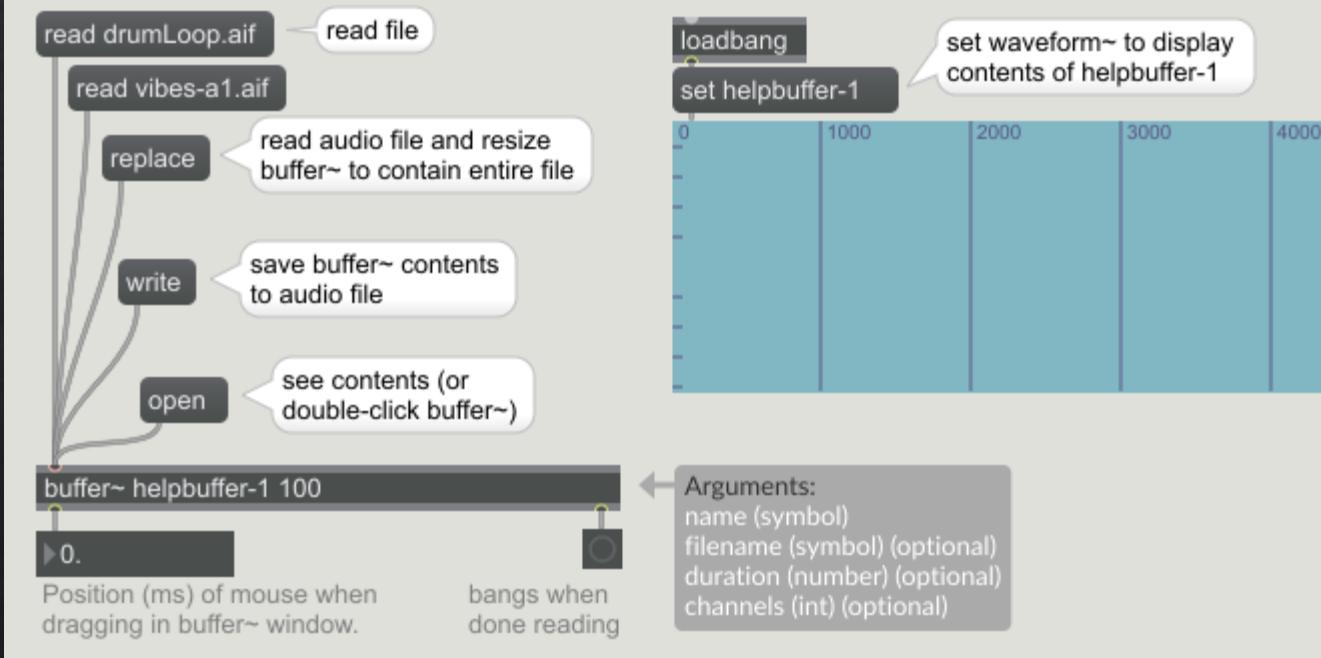
Buffer

Buffer: The amount of data allocated for processing an audio

buffer~

Store audio samples

Use the buffer~ object as a buffer of memory in which samples are stored to be saved, edited, or referenced.



In class challenge

Create a self playing Break Beat Machine

Drum samples will be provided

Assignment

Create a sampler device that records audio on your demand and loops it continuosly

Jitter

Representation of Visual Material in Computational Space

In Jitter, we use Matrix Representation

A matrix is a grid, with each location in the grid containing some information. For example, a chess board is a matrix in which every square contains a specific item of information: a particular chess piece, or the lack of a chess piece.



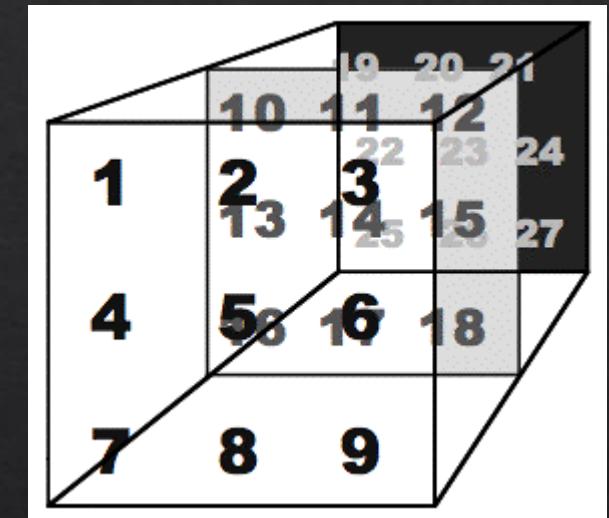
Jitter

Representation of Visual Material in Computational Space

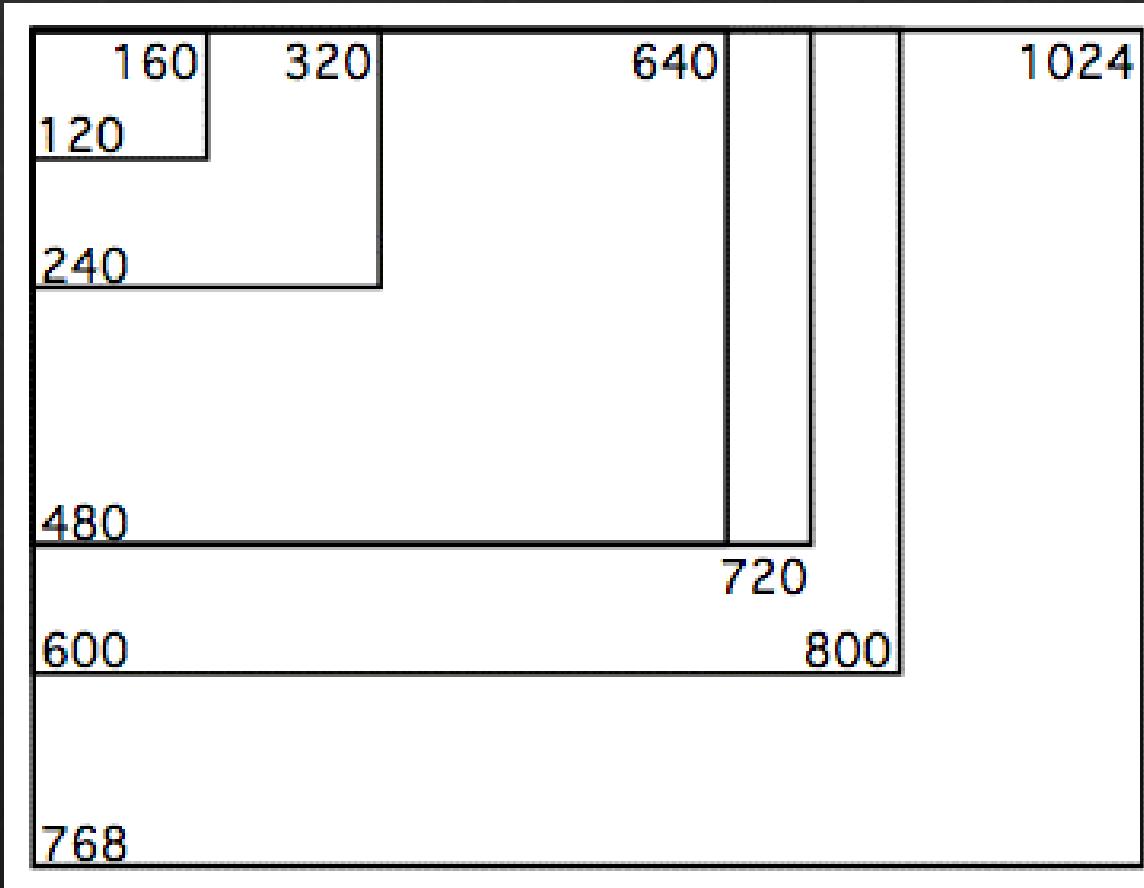
Multidimensional Matrix

3x3x3

A Video Screen is One Type of Matrix



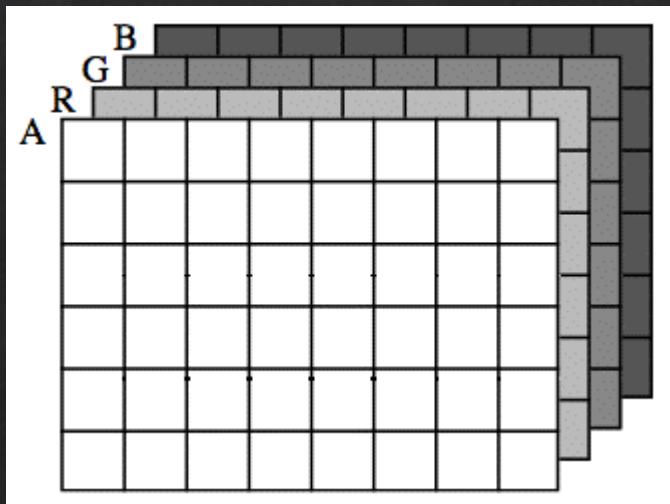
Jitter



A: 255 R: 218 G: 111 B: 218	A: 255 R: 218 G: 111 B: 218	A: 254 R: 218 G: 112 B: 217	etc.
A: 255 R: 218 G: 111 B: 217	A: 255 R: 218 G: 111 B: 217	A: 254 R: 218 G: 112 B: 217	etc.
etc.	etc.	etc.	etc.

A single frame of standard video (i.e., a single video image at a given moment) is composed of $640 \times 480 = 307,200$ pixels. Each pixel displays a color. In order to represent the color of each pixel numerically, with enough variety to satisfy our eyes, we need a very large range of different possible color values.

Jitter



Most computer programs therefore store the color of a single pixel as four separate numbers, representing the alpha, red, green, and blue components (or channels). This four-channel color representation scheme is commonly called ARGB or RGBA, depending upon how the pixels are arranged in memory.

The normal case for representing video in Jitter is to have a 2D matrix with four planes of data—alpha, red, green, and blue. The planes are numbered from 0 to 3, so the alpha channel is in plane 0, and the RGB channels are in planes 1, 2, and 3.

Example

