

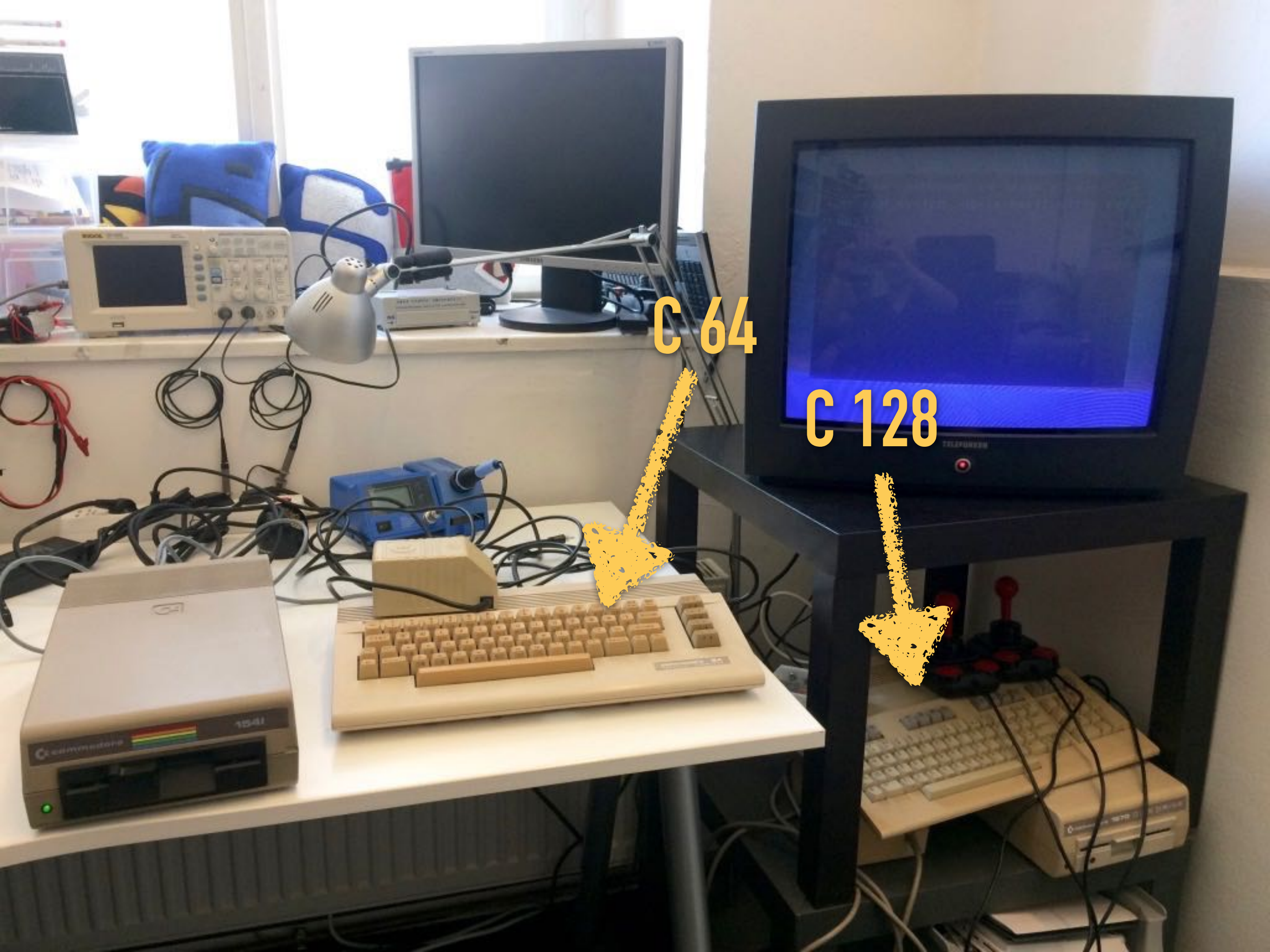
JUGEND HACKT .AT 2017

Daten speichern auf Audiokassetten





C 128



C 64

C 128



OLD GAMES
DATABASE

DATASSETTE



OLD GAMES
DATABASE

noris DATA
DR 1535
Commodore
VC 20, C 64, C 128
Art.-Nr. 5175



noris DATA Datenrekorder DR 1535

RECORD PLAY REWIND F.FWD STOP/EJT PAUSE

000
COUNTER
SAVE







Exkurs:

Audio-Wellenformen



HAMEG
20MHz Oscilloscope

X-MAG
☐

CAL
0.2V

COMPONENT
☐

POWER
☒

X-Y
☐

INTENS

TR
☐

FOCUS

N-POS

HOLD
OFF

OFF
TV: H
TV: V

AC
DC
HF
LF

Y-POS 1

INVERT
☐

CH.1
VERT. INP
1 MO 1130 pf

VOLTS / DIV

400 Vp
max

DC
AC

CH.1



POWER
ON/OFF

X-Y

INTENS

TR

Y-POS

FOCUS

HOLD OFF

OFF
TV: H
TV: V
AC
DC
HF
LF

Y-POS 1

VOLTS / DIV

INVERT

CH.1
VERT. INP
1 MO 1130 pf



HAMEG
20MHz Oscilloscope

X-MAG

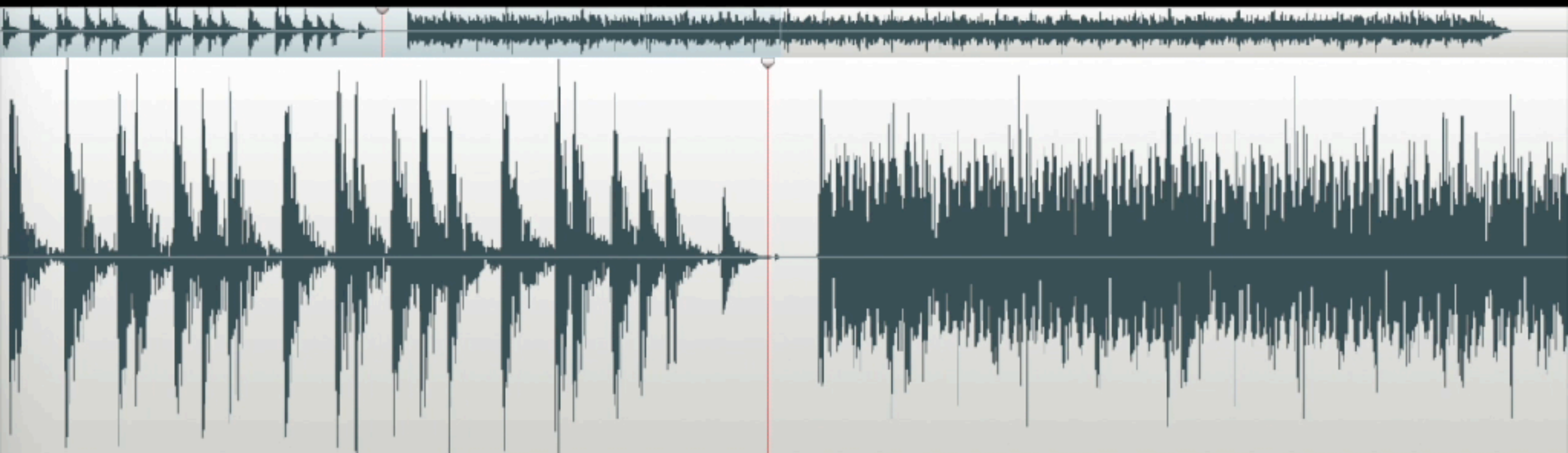
CAL
0.2V

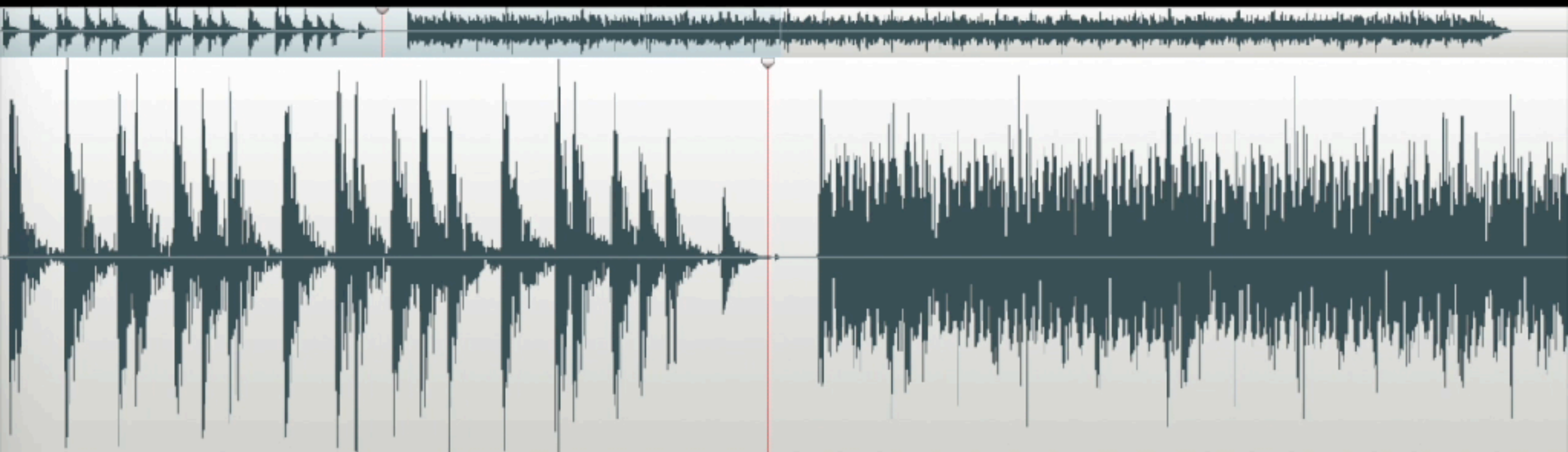
COMPONENT

400 Vp
max

DC
AC

CH.1



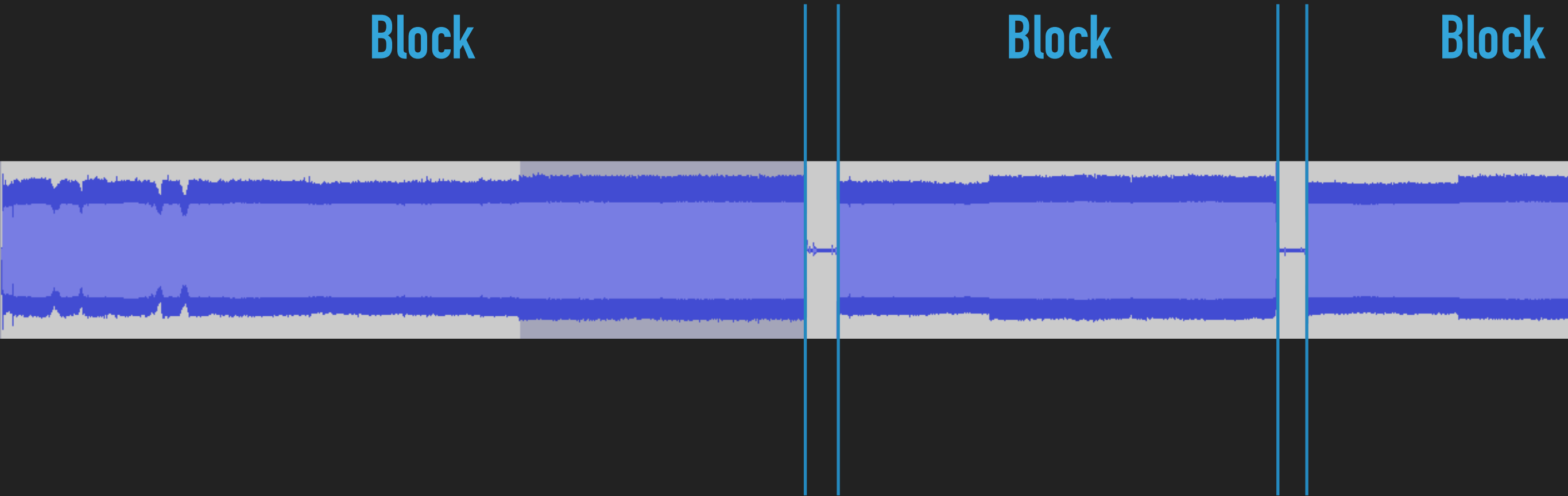


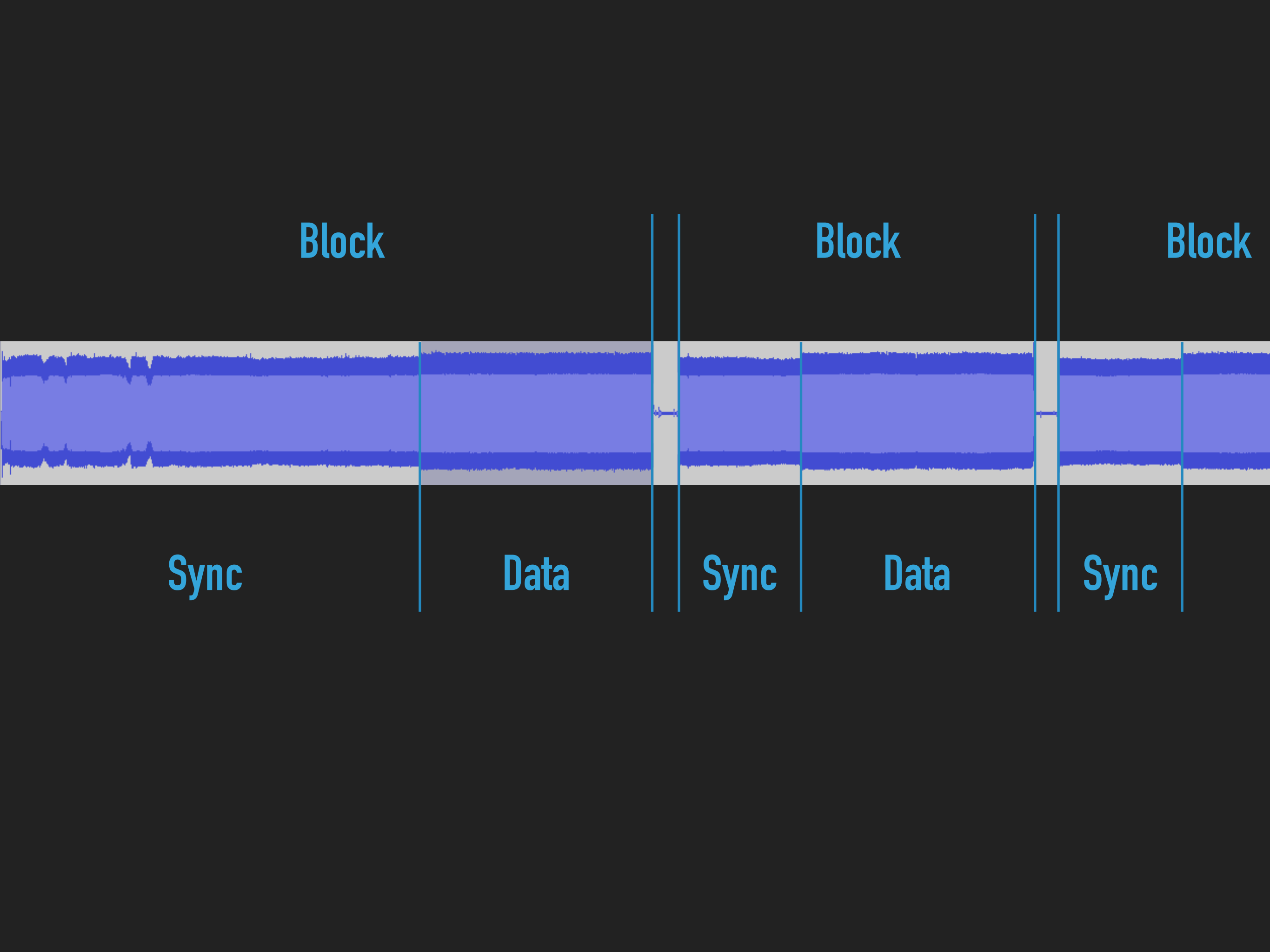


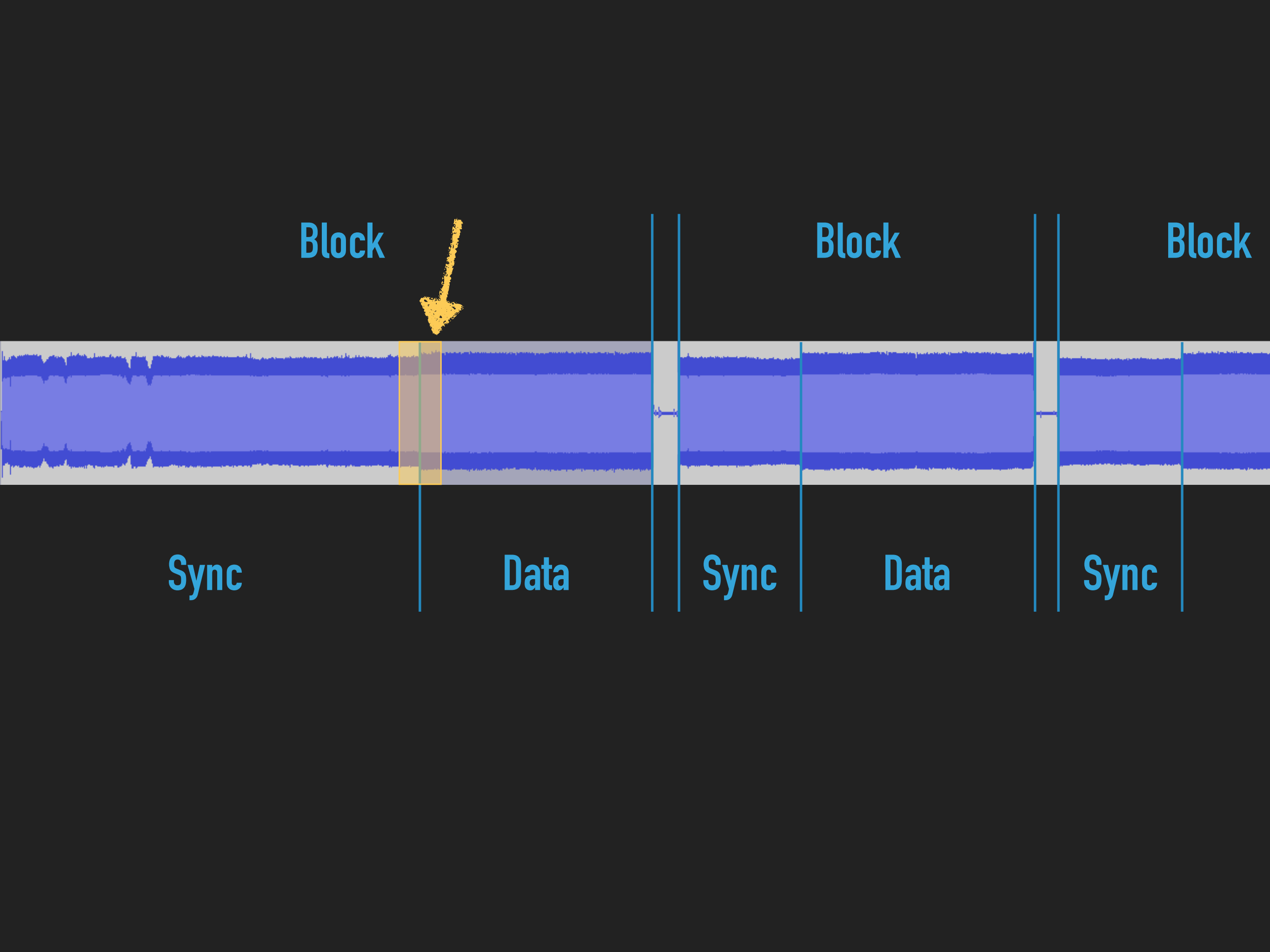
Block

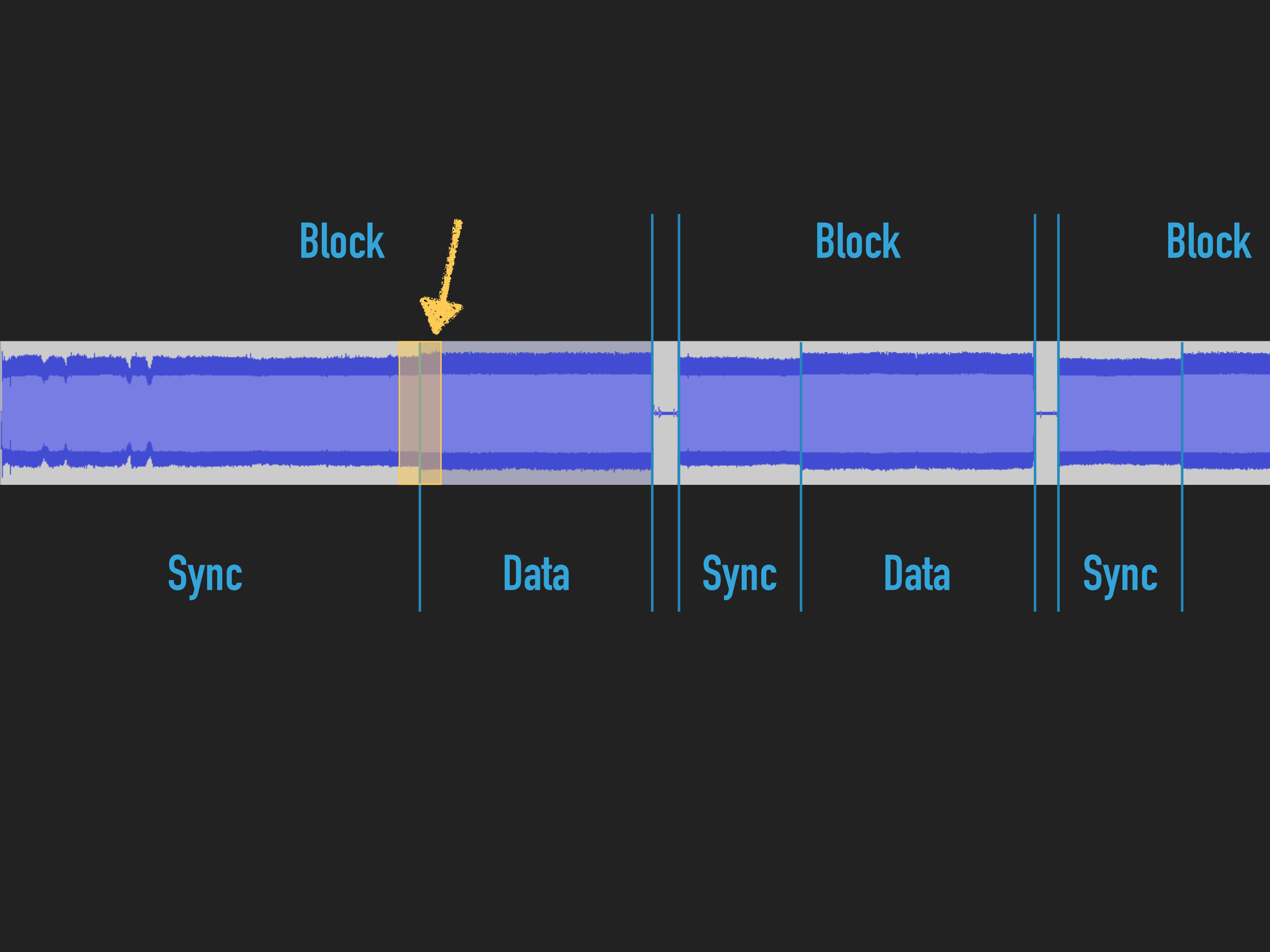
Block

Block



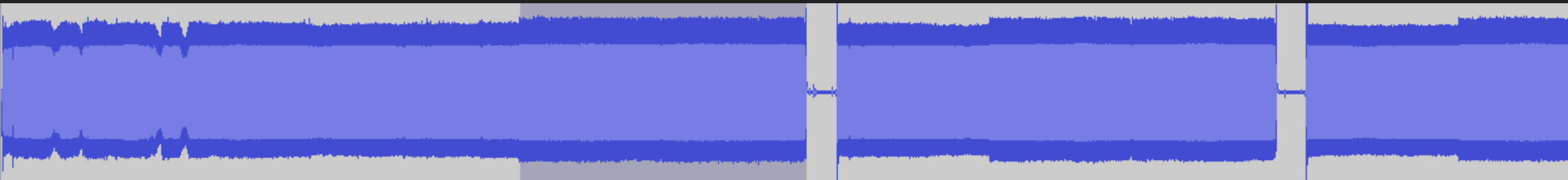






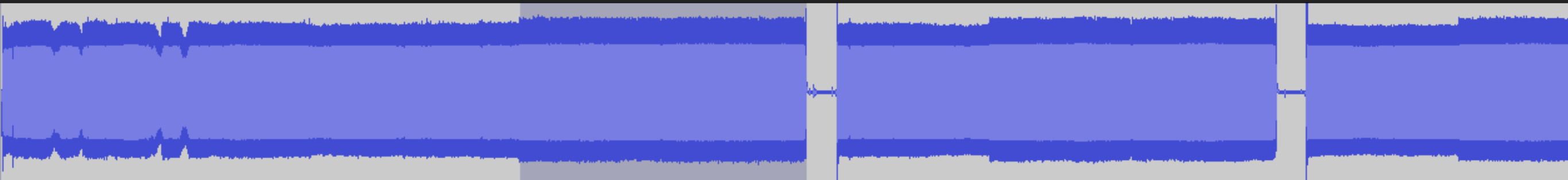
00110000100100110

0 0 1 1 0 0 0 0 1 0 0 1 0 0 1 1 0



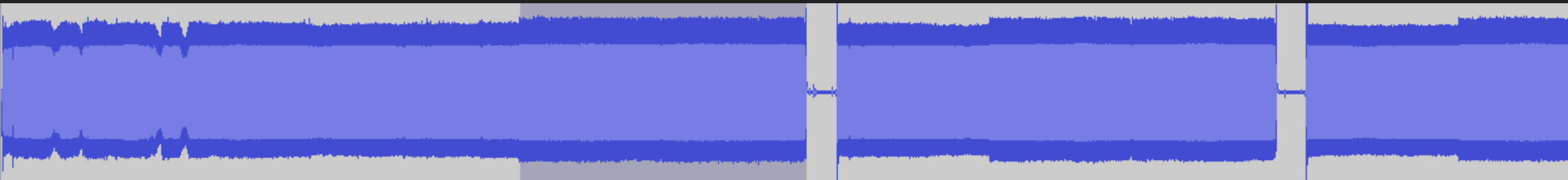
0 0 1 1 0 0 0 0 1 0 0 1 0 0 1 1 0

„Frequenzumtastung“



0 0 1 1 0 0 0 0 1 0 0 1 0 0 1 1 0

„Frequenzumtastung“



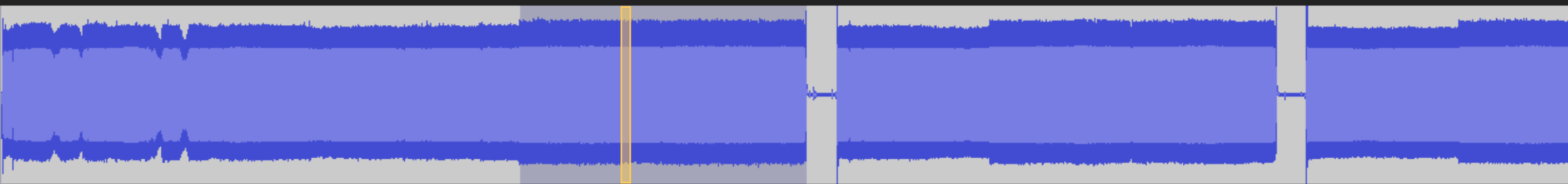


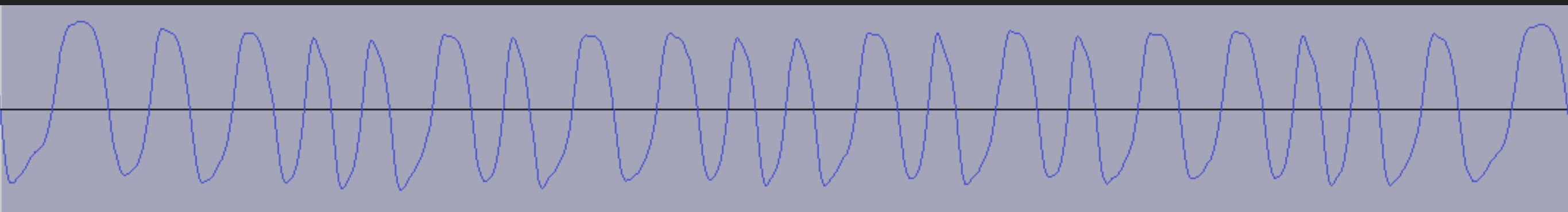
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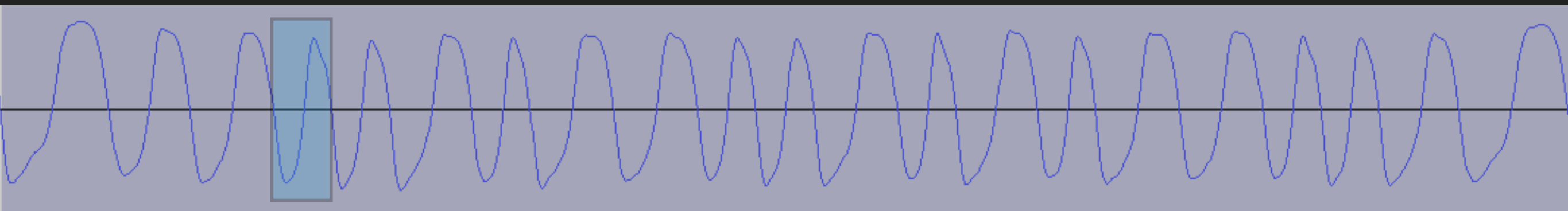
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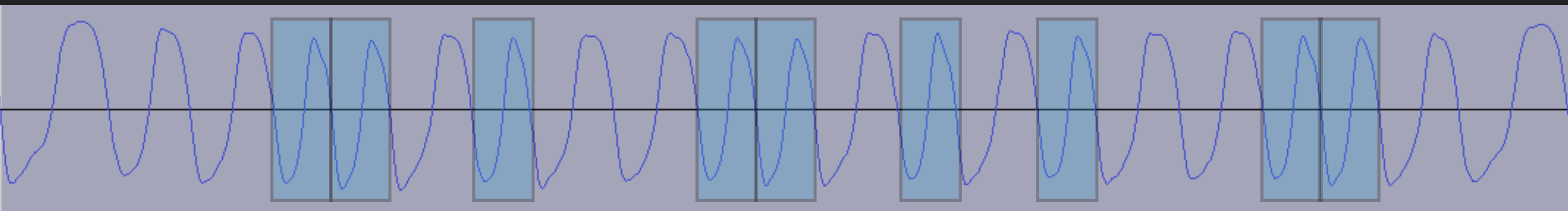


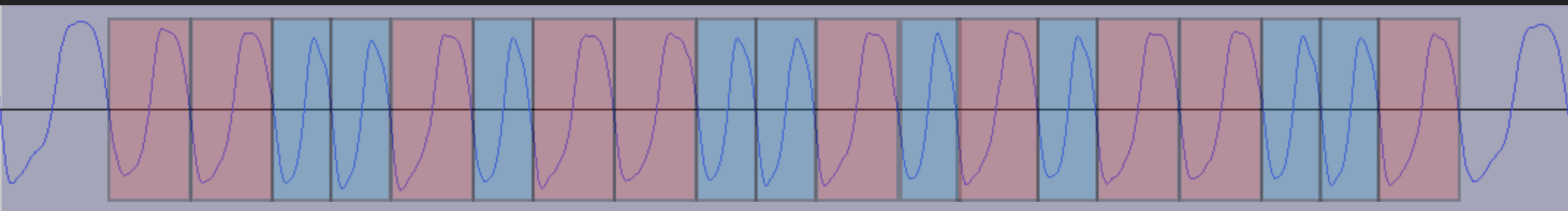


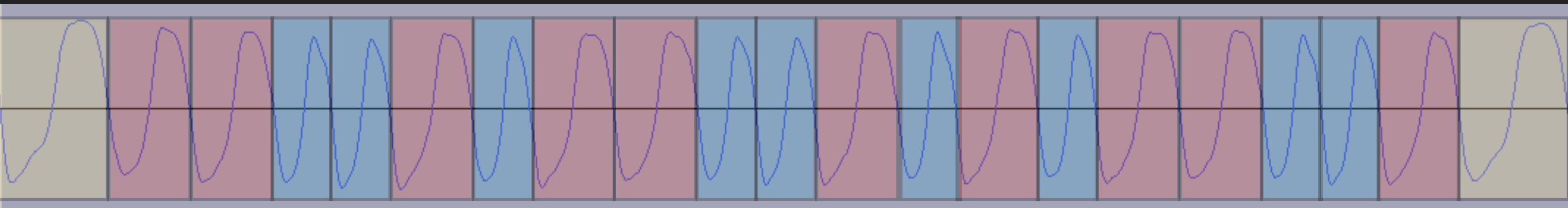


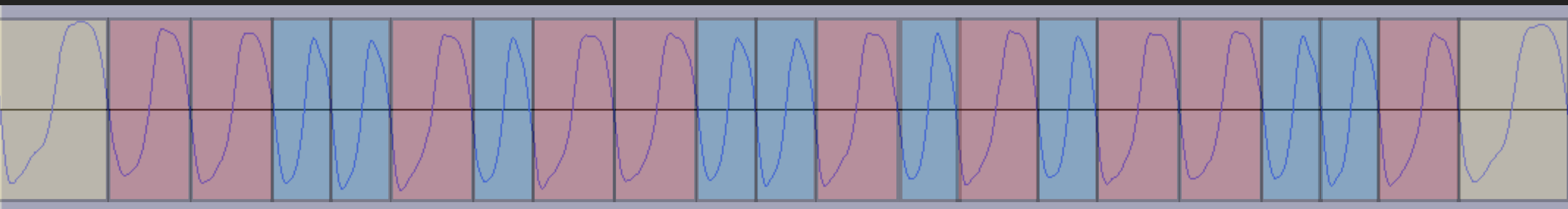
Puls



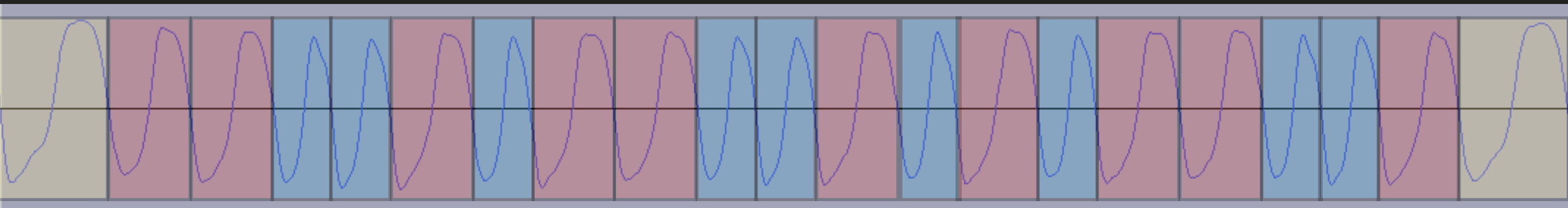




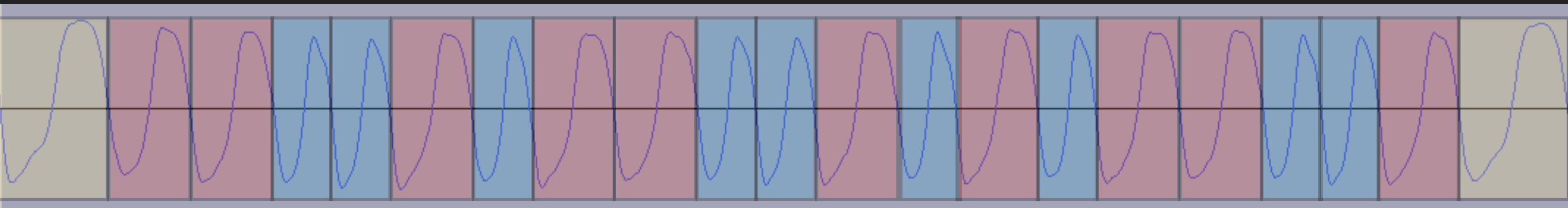




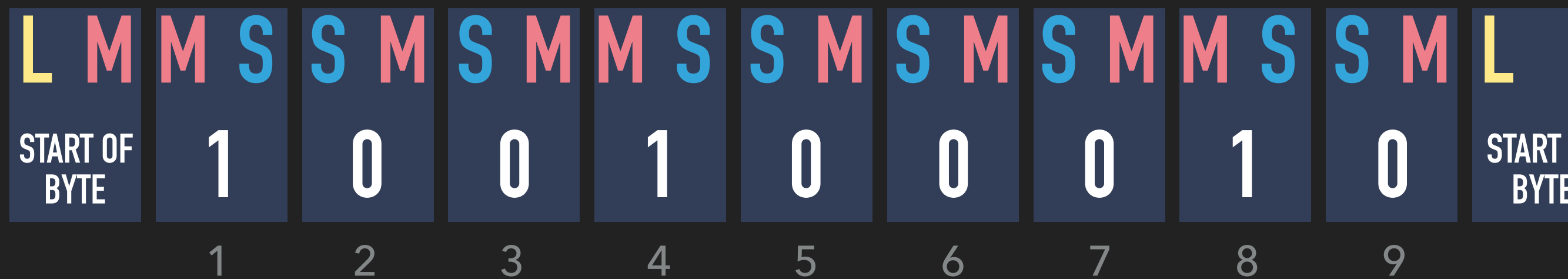
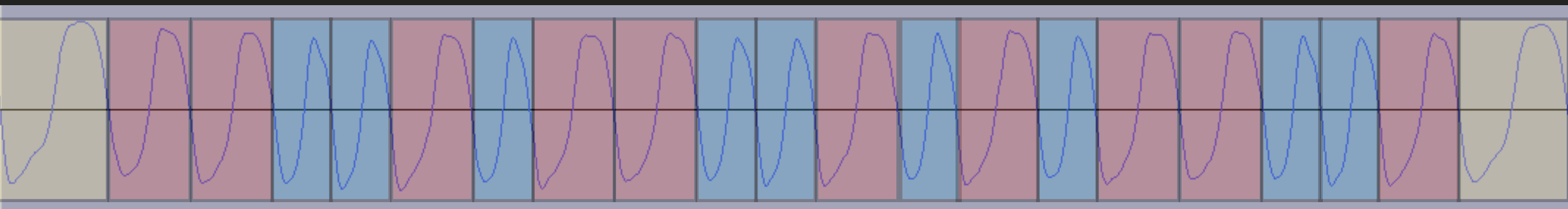
L M M S S M S M M S S M S M S M M S S M L



L	M	M	S	S	M	S	M	M	S	S	M	S	M	S	M	M	S	S	M	L
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---



L	M	M	S	S	M	S	M	M	S	S	M	S	M	S	M	M	S	S	M	L
START OF BYTE	1					1										1				START BYTE



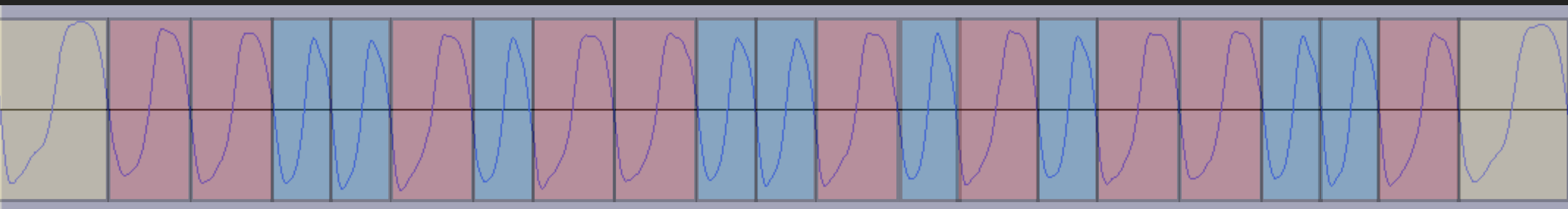
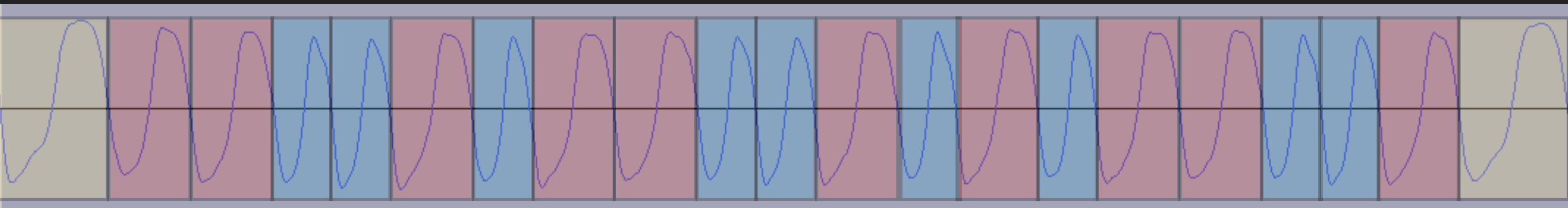
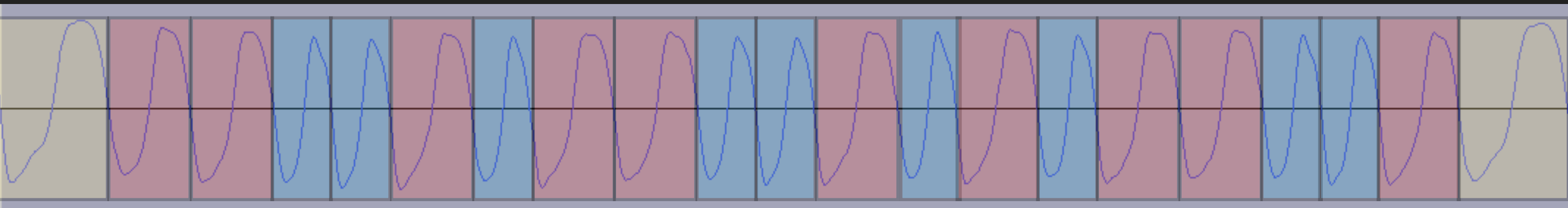


Diagram illustrating the bit fields and values for the instruction format:

Bit Field	Value
L (Start of Byte)	START OF BYTE
M	1
M	0
S	0
S	1
M	0
S	0
M	0
S	0
M	1
S	0
M	0
M	1
S	0
L (Start of Byte)	START OF BYTE

PARITY

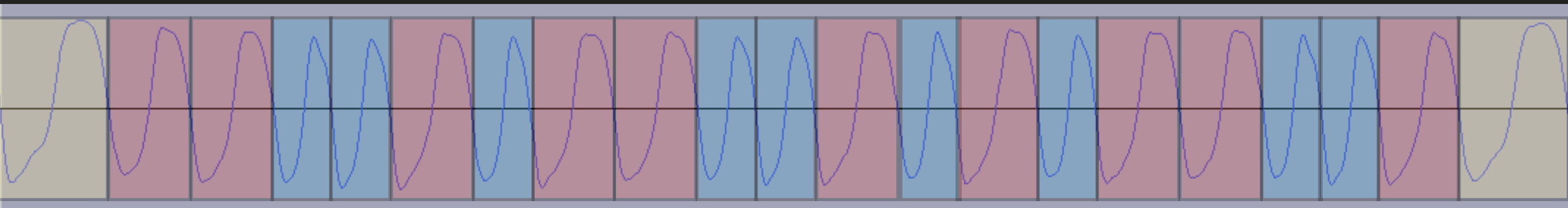




L	M	M	S	S	M	S	M	M	S	S	M	S	M	S	M	M	S	S	M	L
START OF BYTE	1	0	0	1	0	0	0	1	0	0	1	0								START BYTE

MSB
PARITY

1 0 0 0 1 0 0 1
MSB



L	M	M	S	S	M	S	M	M	S	S	M	S	M	S	M	M	S	S	M	L
START OF																				START
BYTE	1	0	0	1	0	0	0	1	0	0	0	1	0							BYTE

MSB

PARITY

$$1\ 0\ 0\ 0\ 1\ 0\ 0\ 1_2 = 145_{10}$$

MSB

GESCHAFFT!



MSB

PARITY

$$1\ 0\ 0\ 0\ 1\ 0\ 0\ 1_2 = 145_{10}$$

MSB

```
D: Reading 64k Block
I: Determined short pulse width: 17
I: Pulse width thresholds: {"S"=>18.7000000000000003, "M"=>26.1800000000000003,
"L"=>35.53}
I: Start parsing block at 2698
D: Reading 64k Block
D: Reading 64k Block
D: Reading 64k Block
D: Reading 64k Block
I: End of leader found at 316440
I: Successfully decoded a data block!
D: Reading 64k Block
D: Reading 64k Block
I: End-of-data marker at 402586
89 88 87 86 85 84 83 82 81 04 3c 03 fc 03 44 41 54 41 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
I: Start parsing block at 402586
I: End of leader found at 404013
I: Successfully decoded a data block!
D: Reading 64k Block
I: End-of-data marker at 490152
```

https://github.com/noniq/c64_datassette_decoder

```
20 20 20 20
20 20 20 20
20 20 20 20
20 20 20 20
```

