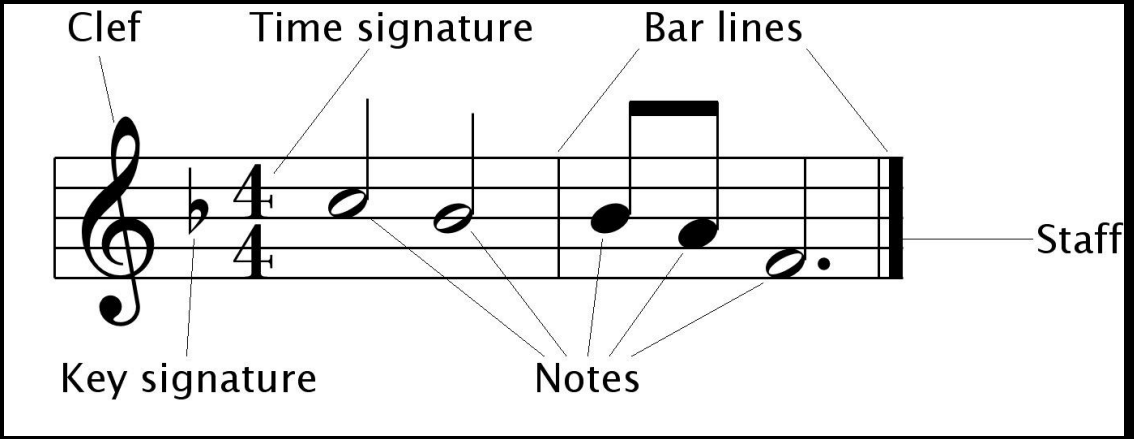
CLASS V - MIDI

MIDI – MUSICAL INSTRUMENT DIGITAL INTERFACE

- MIDI is a protocol developed in America to communicate between computers and (semi)digital instruments like:
- Synthesizers
- Drum computers
- Digital effects
- Modular synthesizers

AN ALTERNATIVE ANNOTATION METHOD

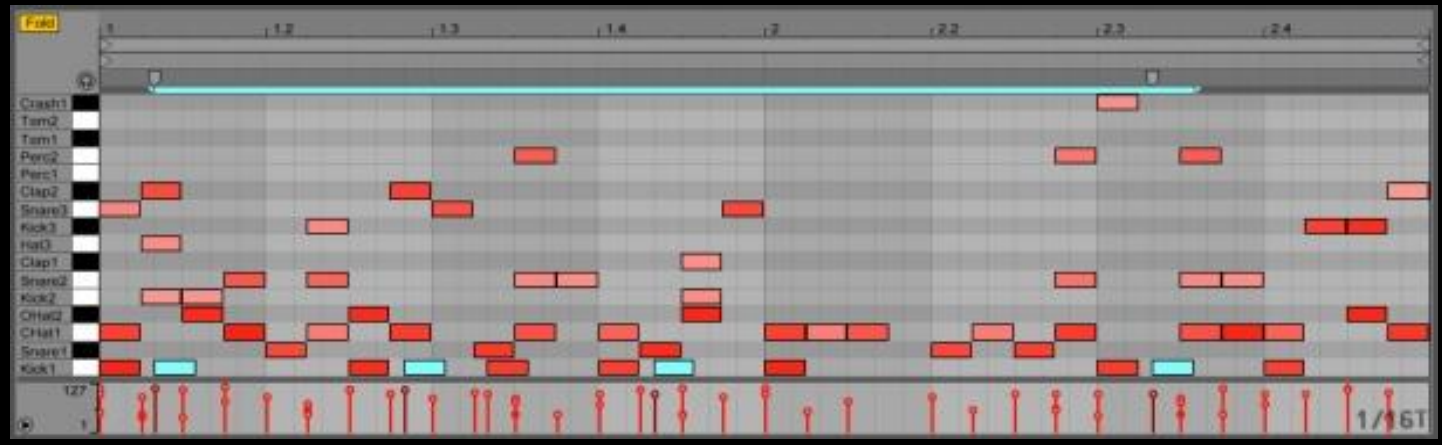
Classical annotation looks like this:



This way of annotation is specifically made so the musician can 'easily' read a lot of musical information in a singe glance. Although this format is rather complex for a 1980's computer to interpret at 44100 times per second.

AN ALTERNATIVE ANNOTATION METHOD

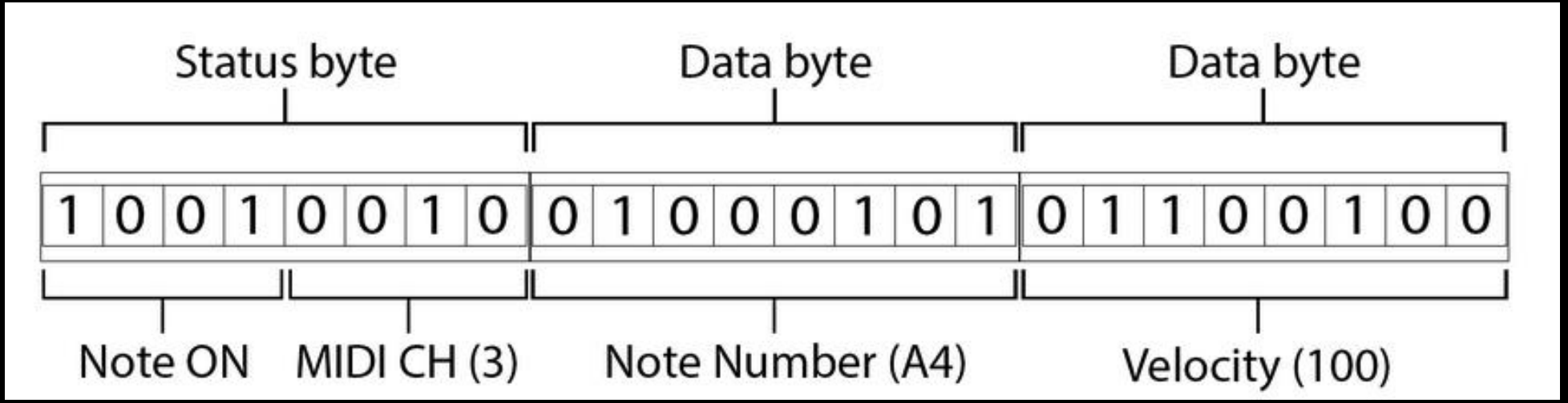
MIDI annotation looks like this:



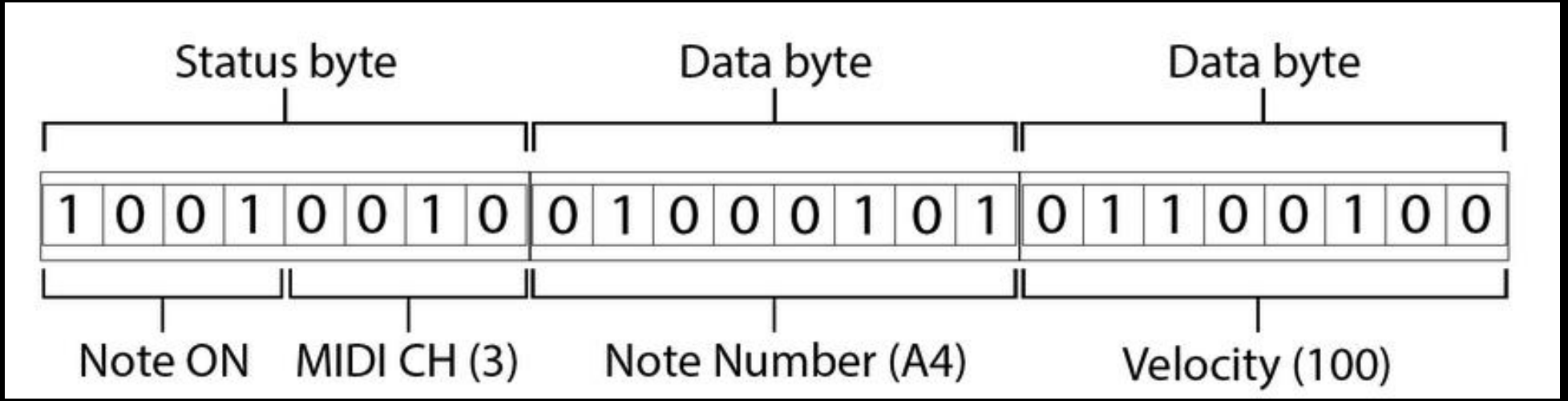
11-2025

In human view MIDI is made understandable written on a timeline. The height of the note indicates where on the scale it was played, the length shows the length, usualy in seconds and the small widget on the bottom shows the velocity. Longer the widget the more velocity the note was played with. Meaning in instrument language more amplitude of the played key or string.

IN COMPUTER VIEW THE MIDI NOTE LOOKS LIKE THIS:



IN NUMBERS THE MIDI NOTE LOOKS LIKE THIS:



0 / 60 | 1 – indefinite | 0 – 127 | 0.0 - 1.0

MIDI – MUSICAL INSTRUMENT DIGITAL INTERFACE

- MIDI itself does not contain any sound. It merely functions as a control signal for the instrument to interpret how and what sound to make.
- Therefor MIDI is also very well suited to use as a controller through out different applications. Like Touchdesigner.

TRADITIONAL MIDI CONTROLLERS

11-11-2025

ALTERNATIVE MIDI CONTROLLER

MIDI CONTROLLER IN TOUCHDESIGNER

- In able to import your MIDI data into Touchdesigner you first need to 'install' your MIDI controller in Touchdesigner.
- Luckily this is a very easy and automated progress.

TouchDesigner 2023.11880: C:/Users/Admin/Desktop/NewProject.1.toe*

File Edit Dialogs Help | WIKI | FORUM | TUTORIALS | O|I | 60 | FPS: 60 | Realtime | 10:45:18 Operator midiin1 deleted. | UPDATE

- Explorer Alt+f
- Textport and DATs Alt+t
- Performance Monitor Alt+y
- Window Placement Alt+w
- Palette Browser Alt+r
- MIDI Device Mapper Alt+d
- Beat
- Variables/Macros
- Console Alt+c
- Errors
- Key Manager Alt+k

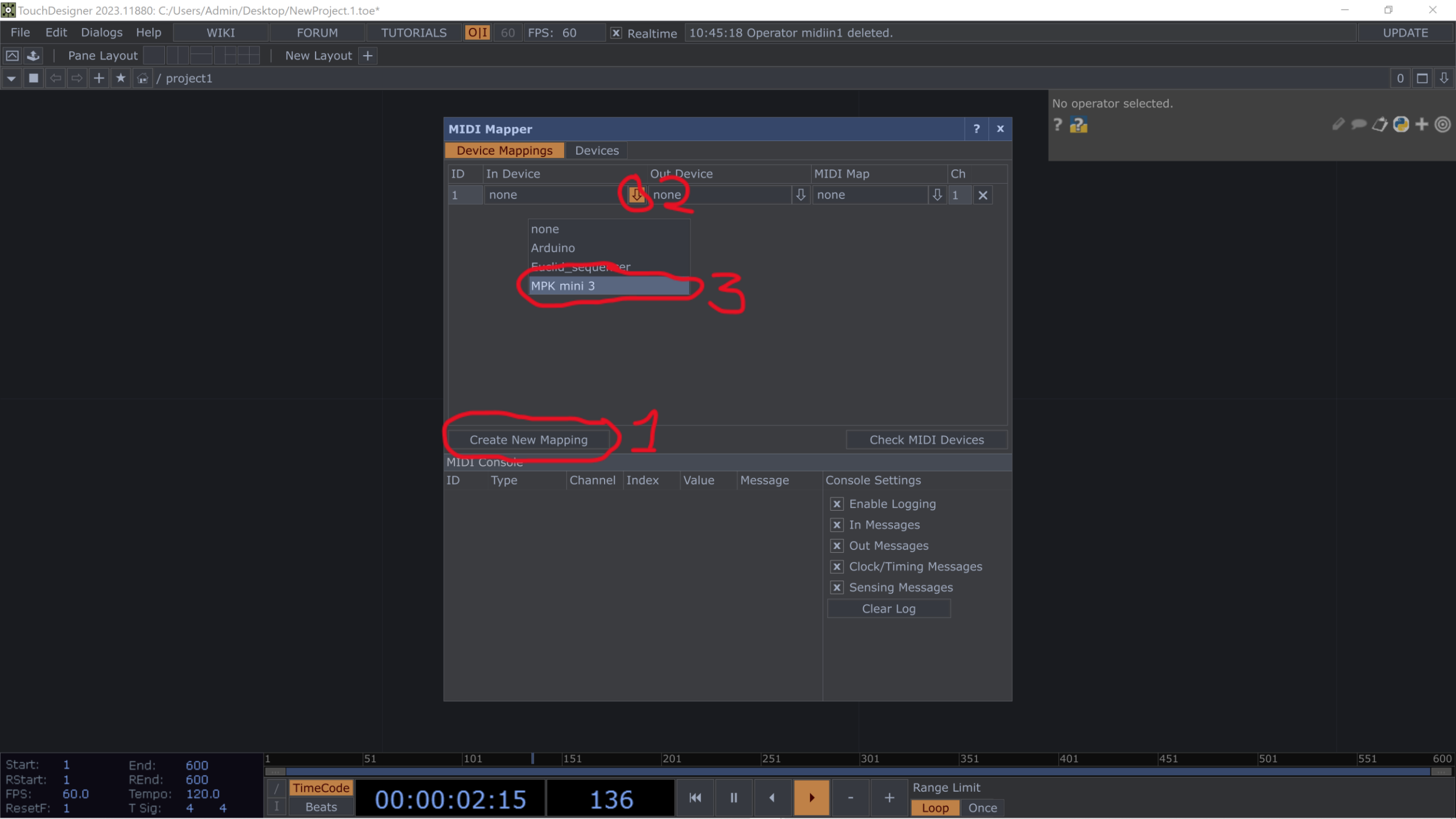
New Layout

No operator selected.

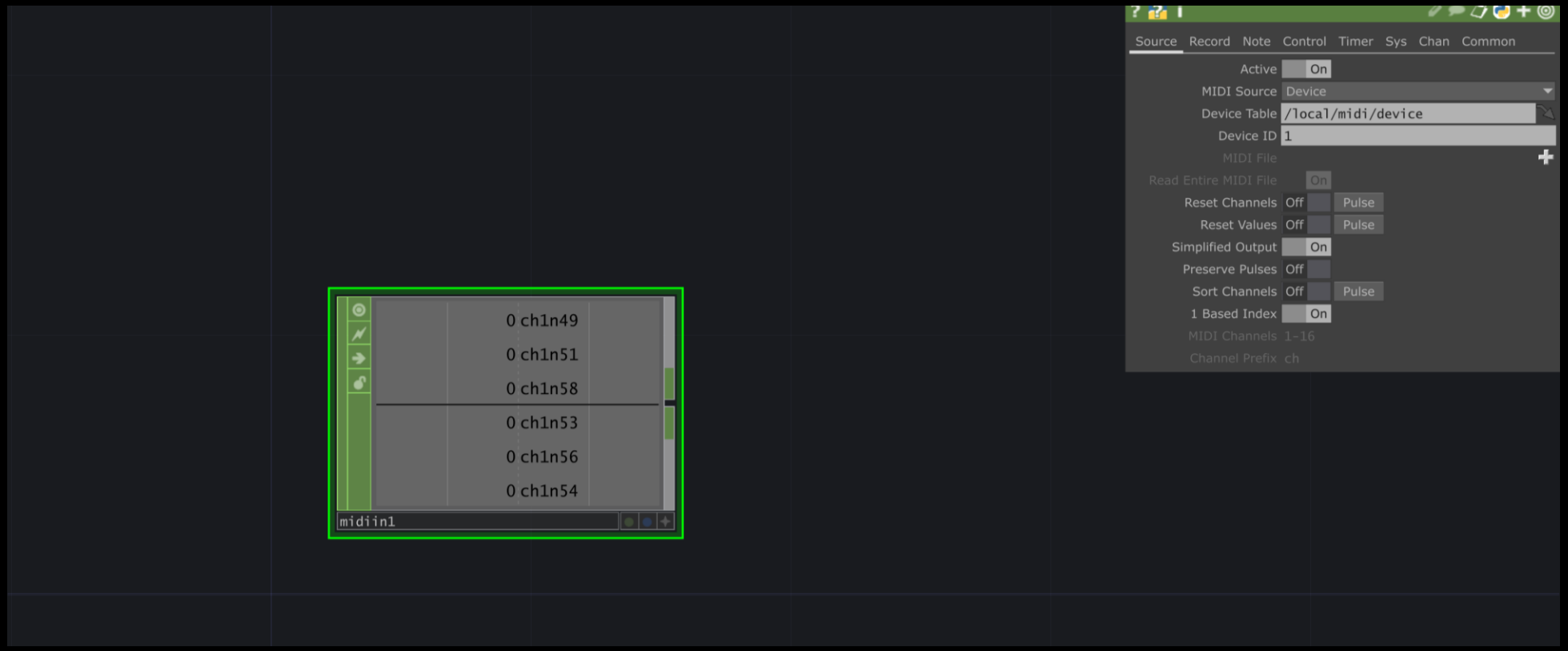
Start: 1 End: 600
RStart: 1 REnd: 600
FPS: 60.0 Tempo: 120.0
ResetF: 1 T Sig: 4 4

1 51 101 151 201 251 301 351 401 451 501 551 600

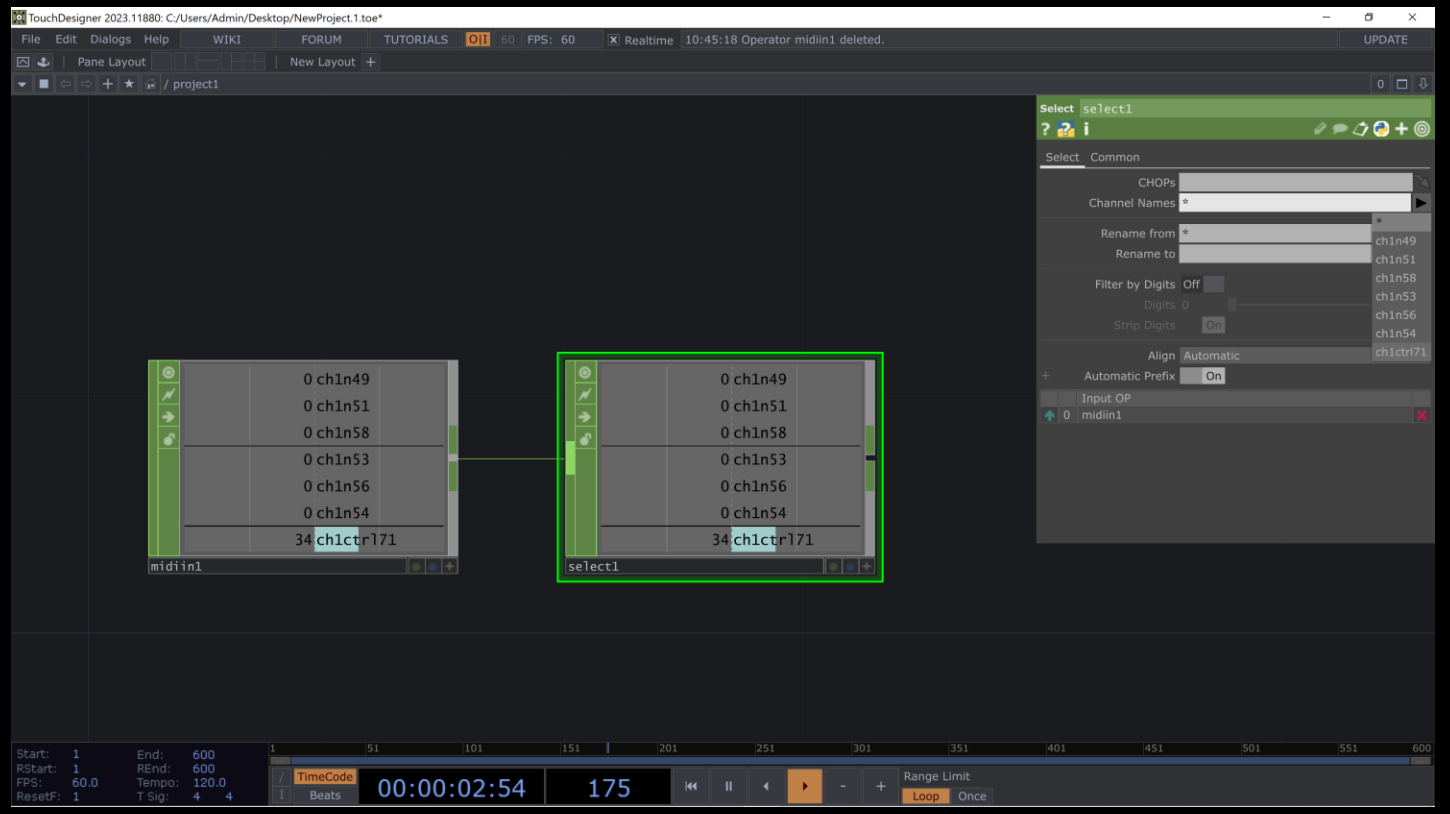
TimeCode Beats 00:00:07:41 462 - + Range Limit Loop Once


TouchDesigner 2023.11880: C:/Users/Admin/Desktop/NewProject.1.toe*
File Edit Dialogs Help WIKI FORUM TUTORIALS FPS: 60 Realtime 10:45:18 Operator midiin1 deleted. UPDATE
Pane Layout New Layout
/ project1
No operator selected.
MIDI Mapper
Device Mappings Devices
ID In Device Out Device MIDI Map Ch
1 none none none 1
none
Arduino
MPK mini 3
Create New Mapping
Check MIDI Devices
MIDI Console
ID Type Channel Index Value Message
Console Settings
Enable Logging
In Messages
Out Messages
Clock/Timing Messages
Sensing Messages
Clear Log
Start: 1 End: 600
RStart: 1 REnd: 600
FPS: 60.0 Tempo: 120.0
ResetF: 1 T Sig: 4 4
TimeCode
Beats
00:00:02:15
136
Range Limit
Loop Once

PLACE A MIDI IN CHOP AND PLAY SOME KEYS, YOU SHOULD SEE THE VALUES FOR EVERY KEY, KNOB OR SLIDER INPUTING INFORMATION.



PLACE A SELECT CHOP TO SELECT CERTAIN CHANNELS FROM A CHOP AND ISOLATE THEM. IN THIS CASE I SELECT CH1CTRL71, IT'S A POTMETER ON THE MIDI CONTROLLER.



- If you then connect the MIDI value to a math and reference it to a transform you can control the sphere size.