

MuseLeader:

Toward Music Editing through Time-series Semantic Parameters Control using Large Language Model

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Background: Time-series Parameter Control



Parameter Control
Panel (16 bar)

Bar 1-4	Bar 5-8	Bar 9-12	Bar 13-16
E	F#	E	B

Generated
Music (16 bar)

Assigned Instruments

Create music with time-series parameter control
e.g. SOUNDRAW (2022), Music-ControlNet (Shih-Lun Wu; 2024)

Background: Time-series Parameter Control



Parameter Control
Panel (16 bar)

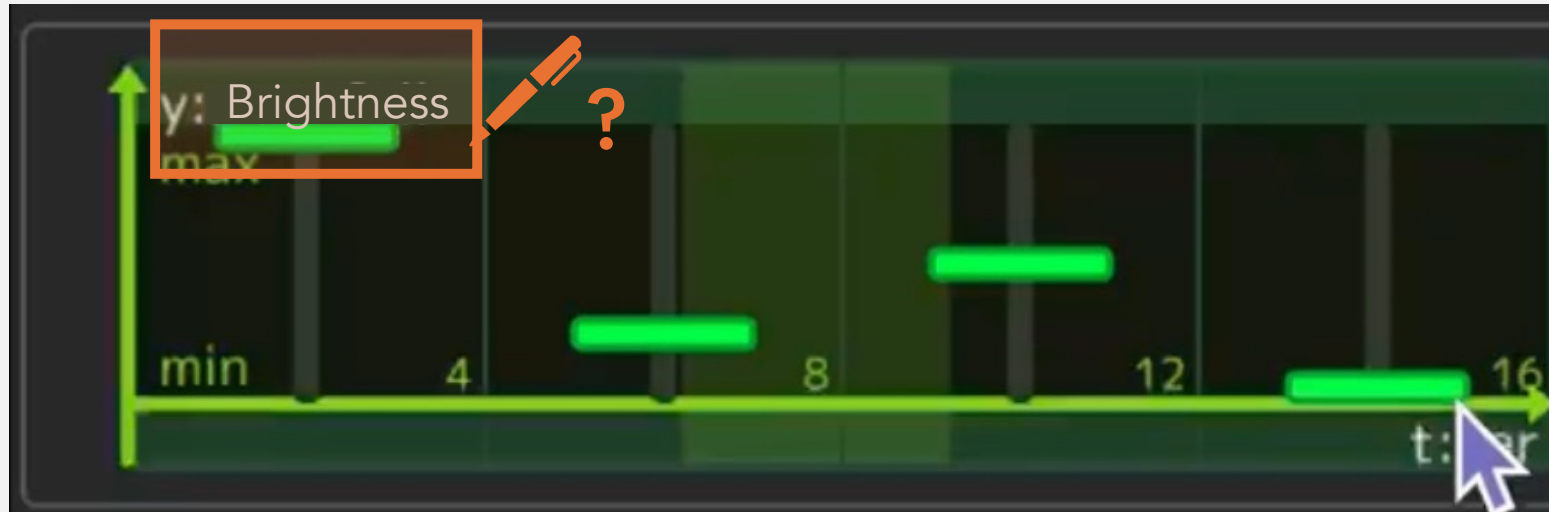


Generated
Music (16 bar)

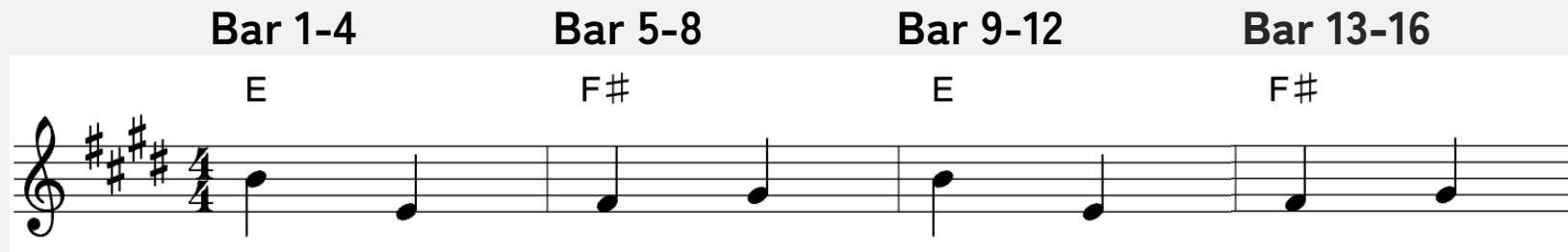
Assigned Instruments

Edit music with time-series parameter control
e.g. SOUNDRAW (2022), Music-ControlNet (Shih-Lun Wu; 2024)

Background: Time-series Parameter Control



Parameter Control
Panel (16 bar)



Generated
Music (16 bar)



Assigned Instruments

Edit music with time-series parameter control

→ The meaning of each parameter is predefined by the system.

Aim of this research

Customizable semantic and time-series parameter control



Large Language Models (LLMs)

- trained with a certain degree of musical knowledge (R.Yuan, et al. 2024)
- effective for creative support applications (Z.Yixiao, et al. 2024)

How far can LLMs take us in semantic musical control?