



Processor

• gets midi and pushes to Queue

```
public:
    MidiProcessor(); Constructor

void processBlock(juce::AudioBuffer<float>* a, juce::MidiBuffer* m) override;
    • receive info/midi from daw and send to Queue
    • Checks whether Midi should be played in the block
juce::AudioProcessorEditor* createEditor() override;
    • Instantiates Editor and gives access to public
    up
{
    spec_queue<juce::MidiMessage, 512> midi_message_queue;
    spec_queue<juce::AudioPlayHead::CurrentPositionInfo, 512> playhead_position_queue;
    spec_queue<float, 512> value_queue;
    • Instantiates Queues for sending/receiving
    from/to other threads/objects
    • Create
```

Queue



get pointer to Queue & pass to Logger

pass pointer to Logger



Editor

```
class MidiProcessorEditor : public juce::AudioProcessorEditor
{
public:
    explicit MidiProcessorEditor(MidiProcessor* m);

    ~MidiProcessorEditor() override {}
    • Instantiate Logger & add to daw
    • Pass the Queue from Processor to Logger
    and start the Logger thread
    private:
        MidiNoteValueLoggerTextEditor MidiNoteValueLoggerTextEditor;
};
```

Logger Thread

```
class MidiNoteValueLoggerTextEditor : public juce::LoggerTextEditorTemplate
{
public:
    MidiNoteValueLoggerTextEditor(juce::AudioProcessor* p, juce::MidiMessageQueue* q)
    • Give access to the shared Queue
    • Add data
    • Define how to process and display received msg.
    process() override
    {
        while (true)
        {
            juce::MidiMessage* msg = q->getNextMessage();
            if (msg)
            {
                // Process the message
            }
        }
    }
};
```

Real-time

