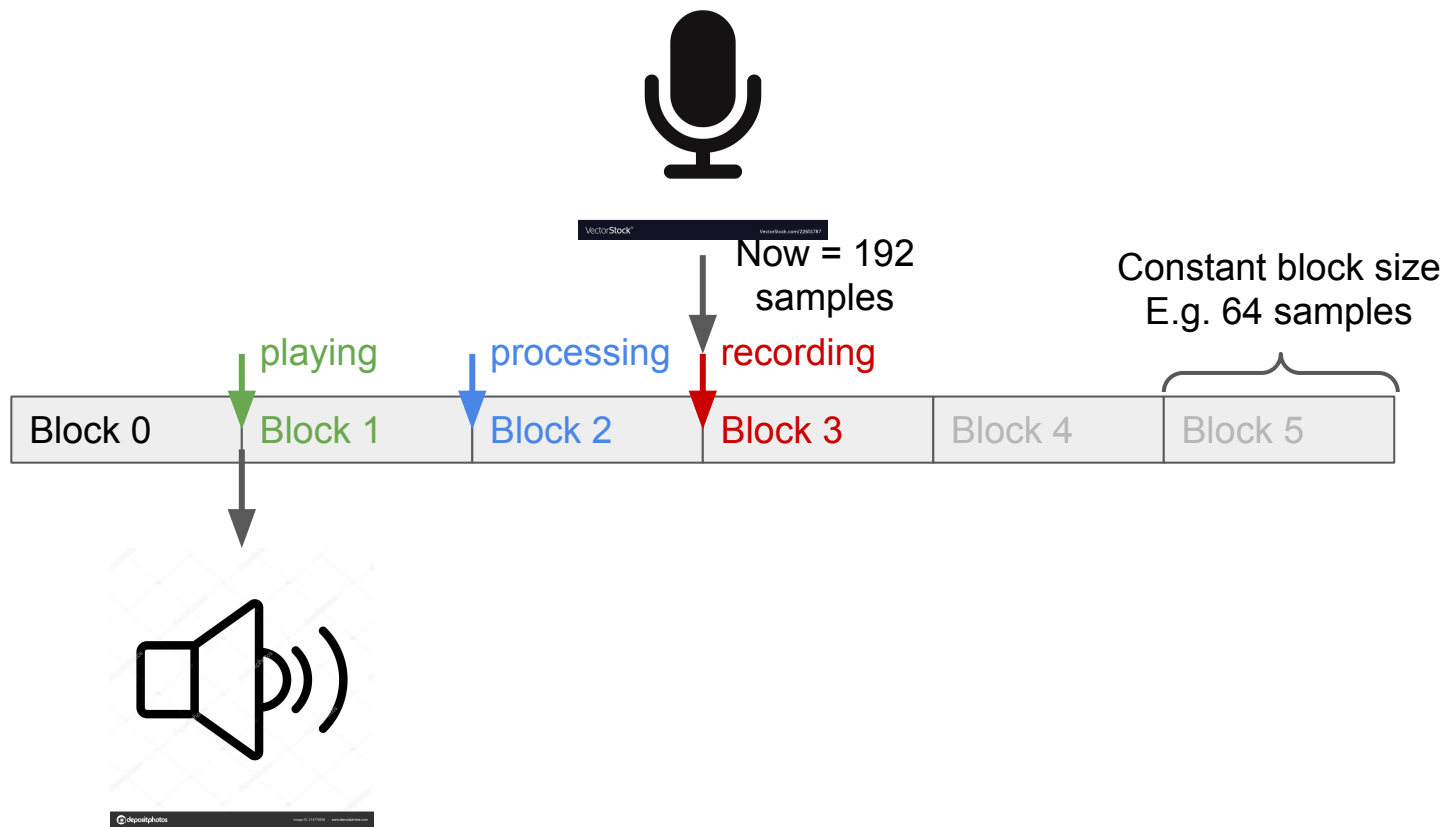


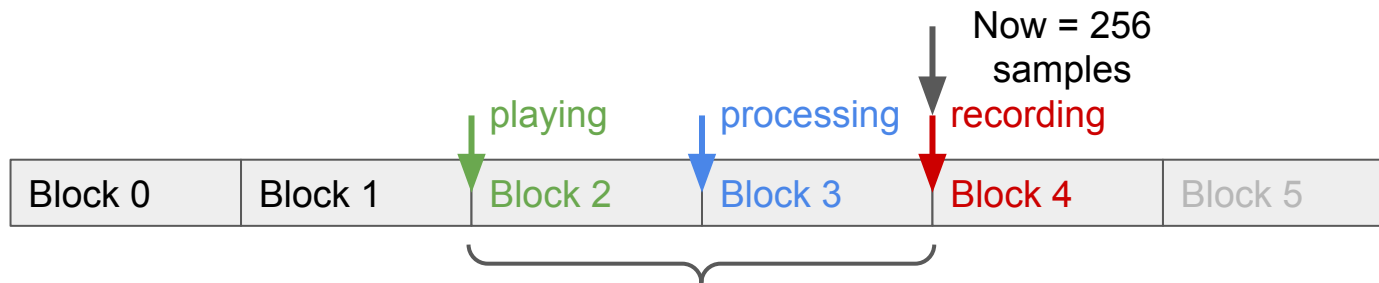
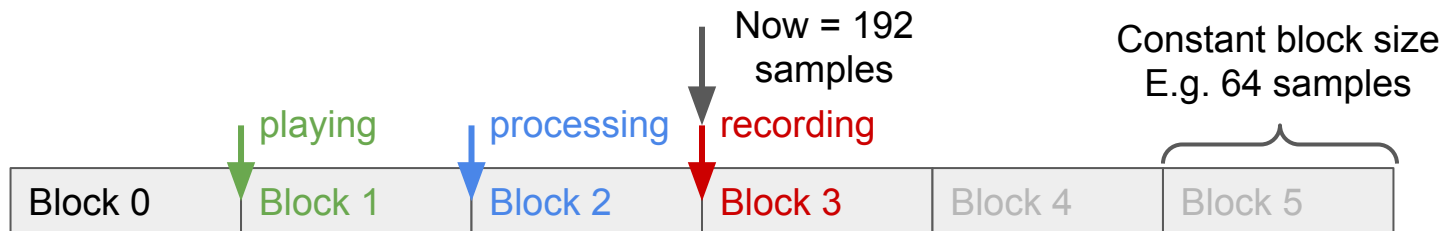
JUCE pt. 1

Real-time, block-based audio processing

Block-based processing

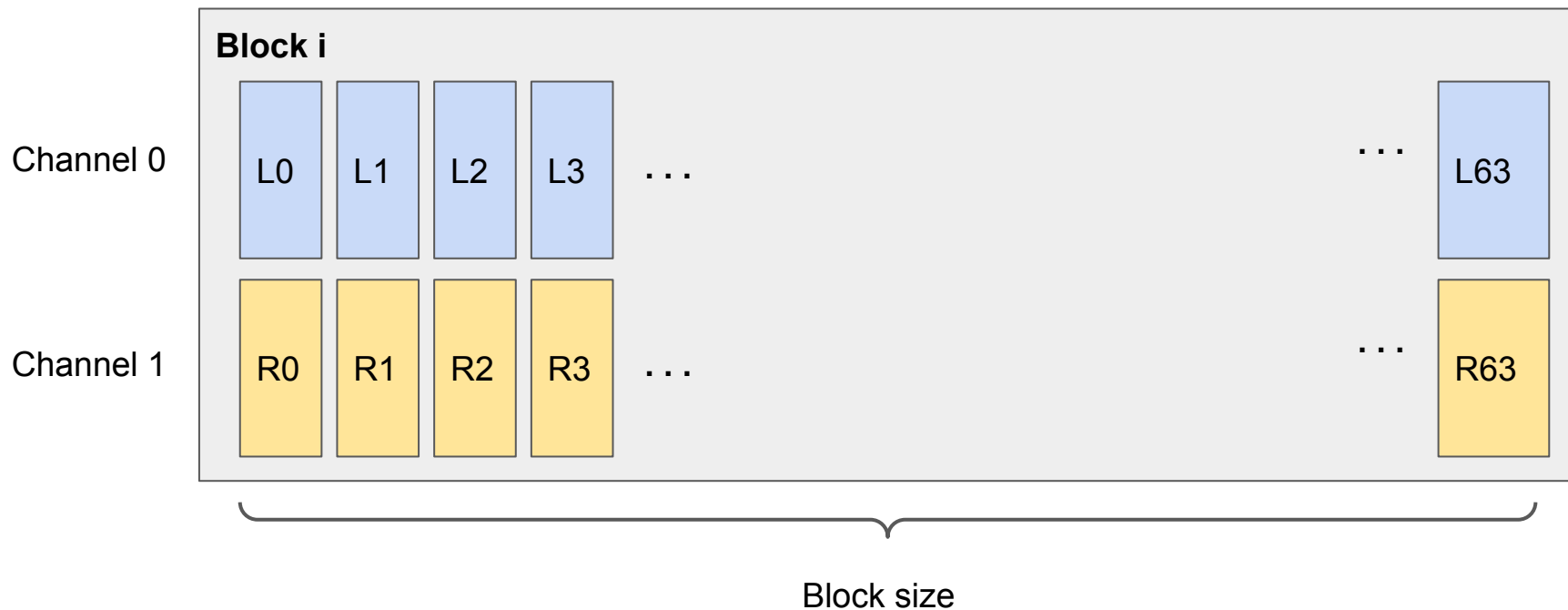


Block-based processing (latency)



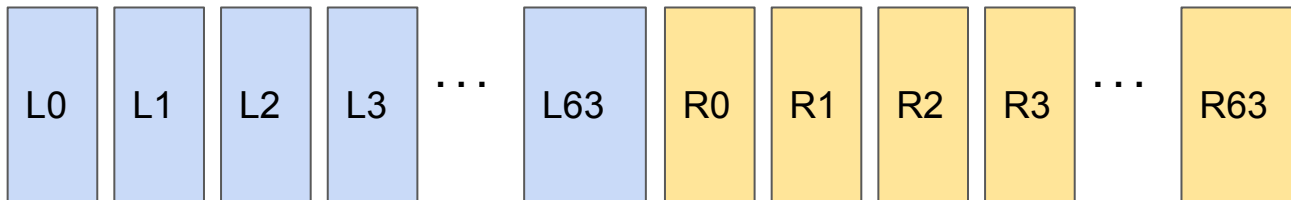
$$\text{Latency} = 2 * \text{block size}$$

Inside a block

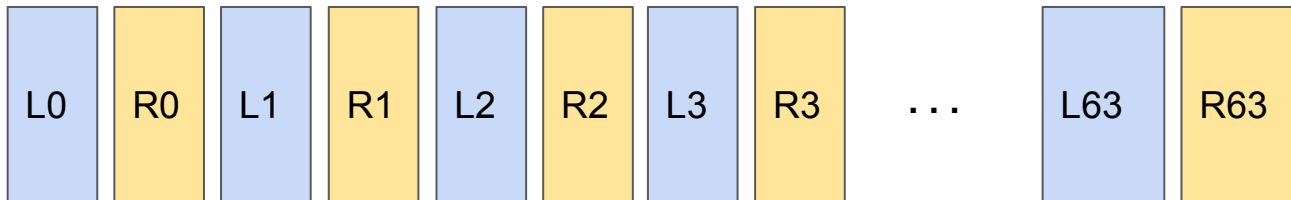


Block in computer memory

Non-interleaved

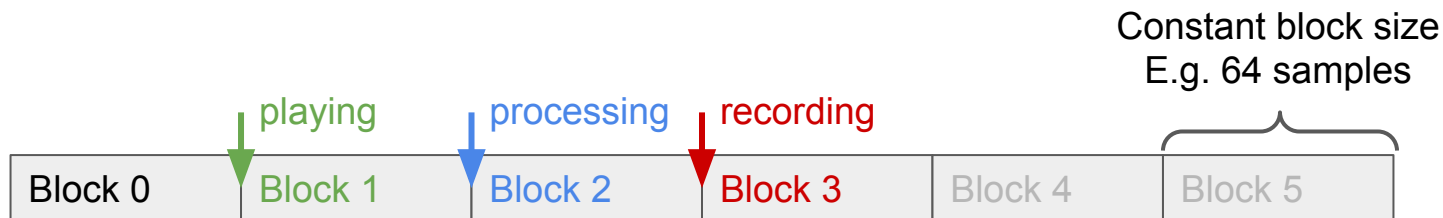


Interleaved



In JUCE this information is mostly hidden from us - we can retrieve data for each channel by applying the proper index (0 for left and 1 for right). We will only need this information from loading interleaved audio files and for communicating audio data with other frameworks.

Block-based processing in JUCE



Get what has been recorded (input channel 0) **as:**

```
auto* inReadBuffer = bufferToFill.buffer->getReadPointer(0, bufferToFill.startSample);
```

Access what needs to be processed (output channel 0) **as:**

```
auto* leftWriteBuffer = bufferToFill.buffer->getWritePointer(0, bufferToFill.startSample);
```

```
void MainComponent::getNextAudioBlock (const juce::AudioSourceChannelInfo& bufferToFill)
```

Common/practical issues

- In Windows 10, you might need to disable audio enhancement in audio device settings.
- To find what we have added in our examples, look for the code included in “__added__” vvv and “__added__ ^^^”