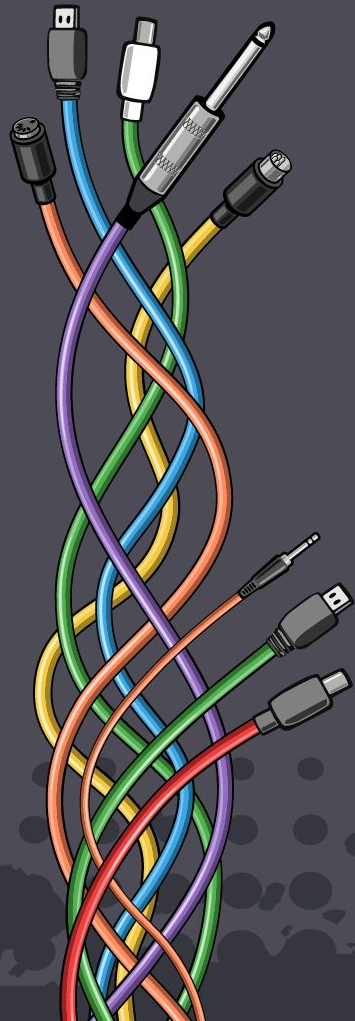




THE OFFICIAL JUCE AUDIO PLUGIN DEVELOPMENT COURSE IS HERE

AND IT'S FREE...

JAN WILCZEK & TOM POOLE

ADC²⁵
Bristol



- TheWolfSound.com
- youtube.com/@WolfSoundAudio
- WolfTalk podcast host
- JUCE YouTube channel creator
- JUCE user since 2018



Jan Wilczek
[Yan Vil-check]

The Official JUCE Audio Plugin Development Course

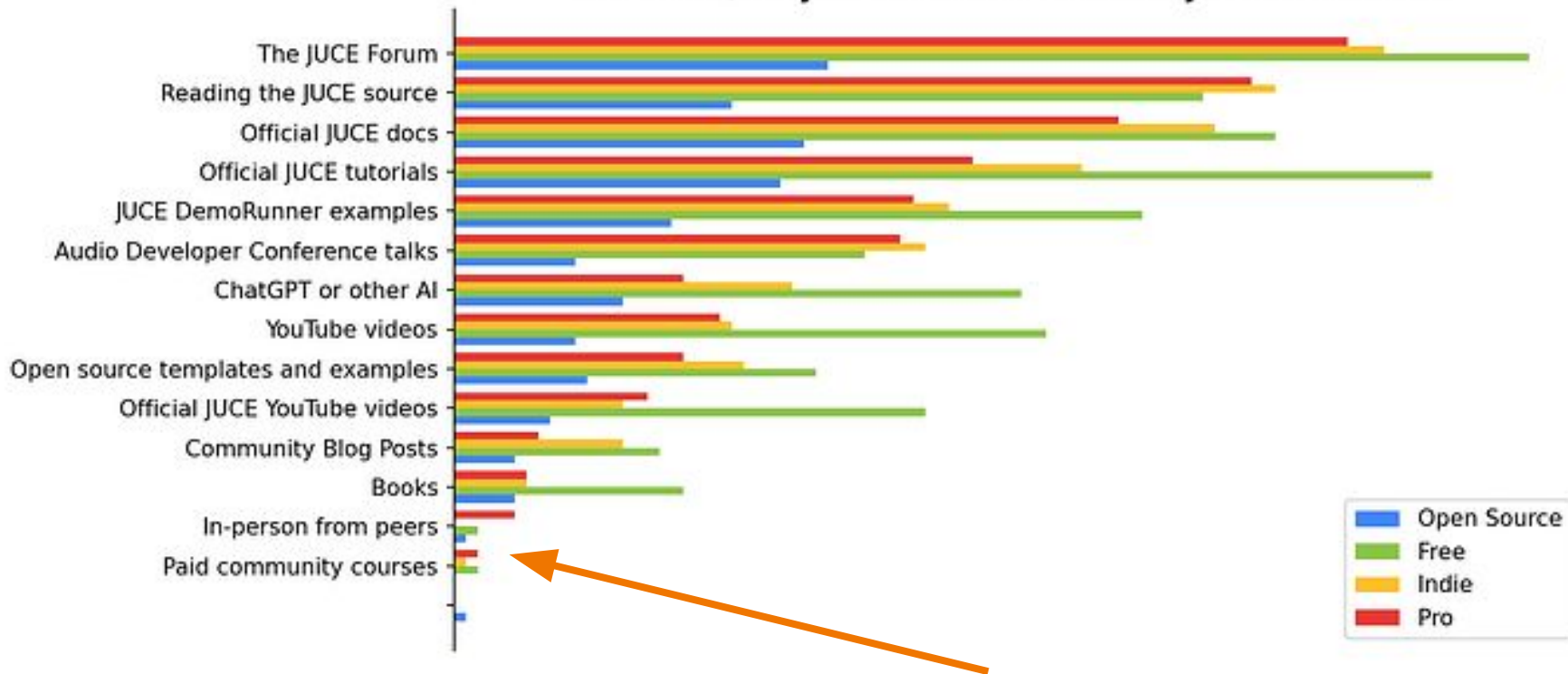
1. What is it?
2. Why do we need it?
3. What's in it for you?
4. Did the course influence JUCE?



Do you know JUCE (somewhat)?

Who is a self-taught JUCE dev?

How did/do you learn how to use JUCE features?



Was the learning smooth?

Have you ever...



Have you ever...

1. Heard glitches in your plugin?

Have you ever...

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2. Got a JUCE assertion failure message?

Have you ever...

1. Heard glitches in your plugin?
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3. Sent the plugin to your friend just to have it crash instantly?

Have you ever...

1. Heard glitches in your plugin?
2. Got a JUCE assertion failure message?
3. Sent the plugin to your friend just to have it crash instantly?
4. Unknowingly tested an outdated plugin?

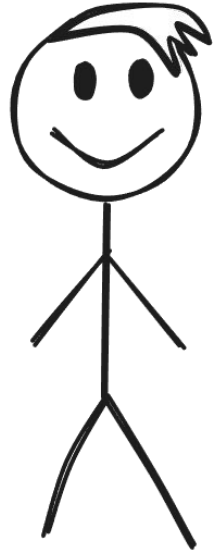
Is `juce::SliderParameterAttachment` real-time-safe?

Is `juce::SliderParameterAttachment` real-time-safe?



"(...) there are also **unknown unknowns**—the ones we don't know we don't know."

~Donald Rumsfeld, United States Secretary of Defense



charlie

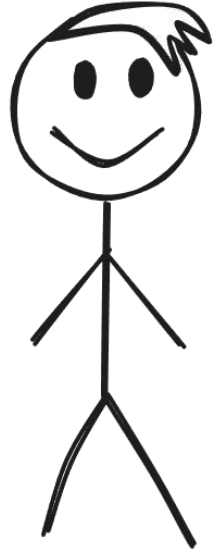


JUCE

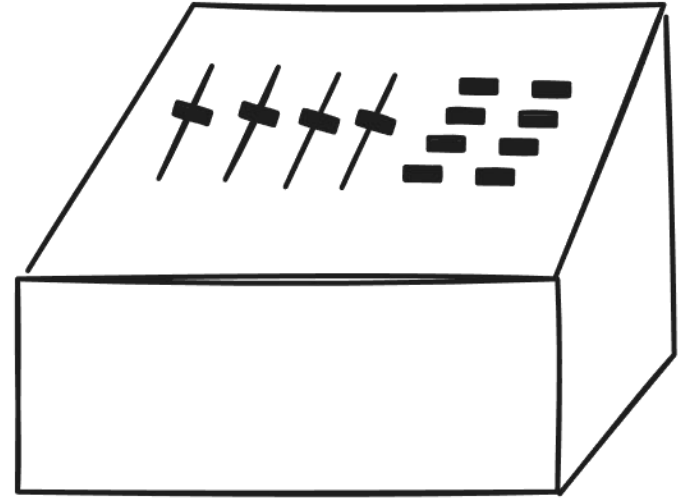
x

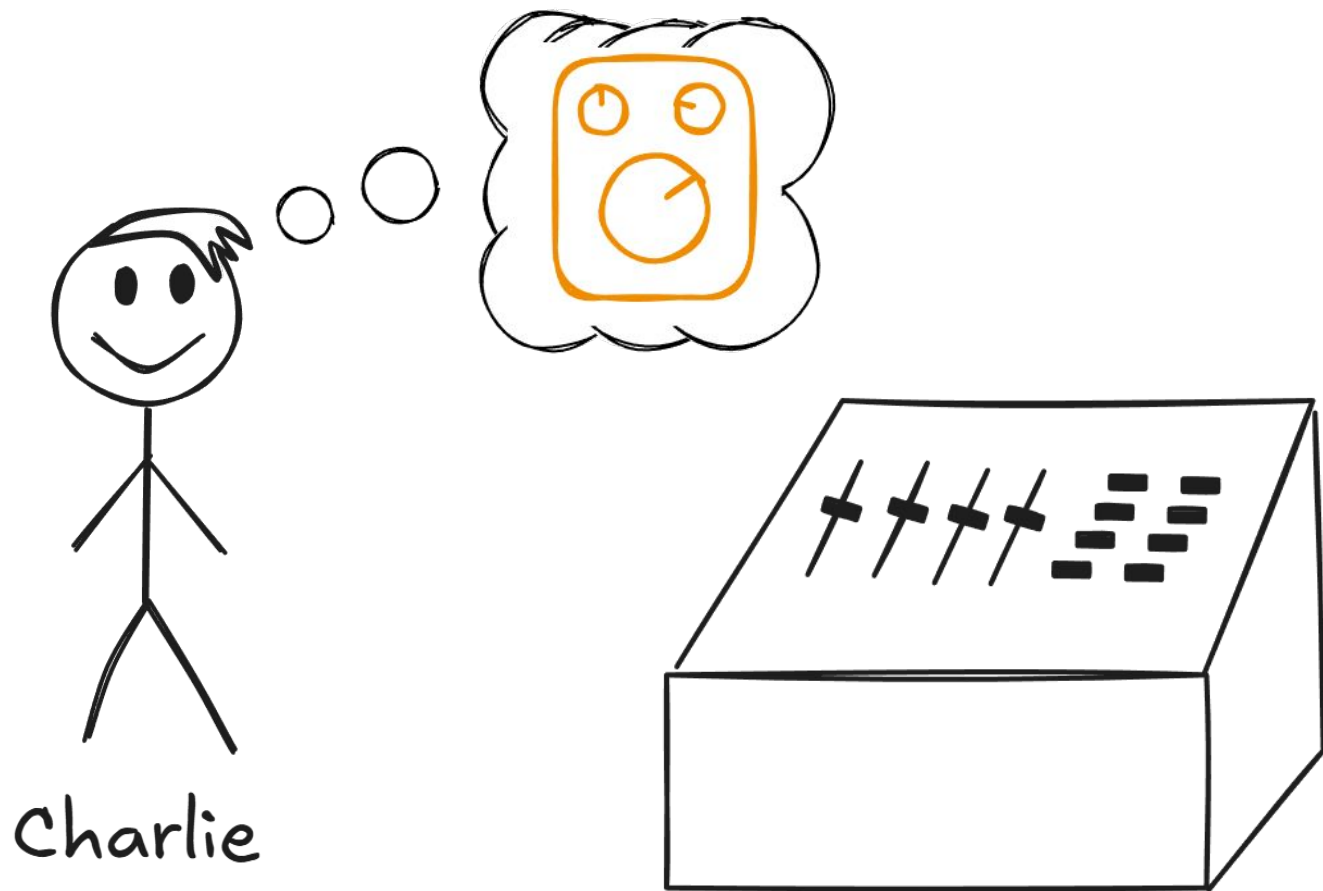
WolfSound



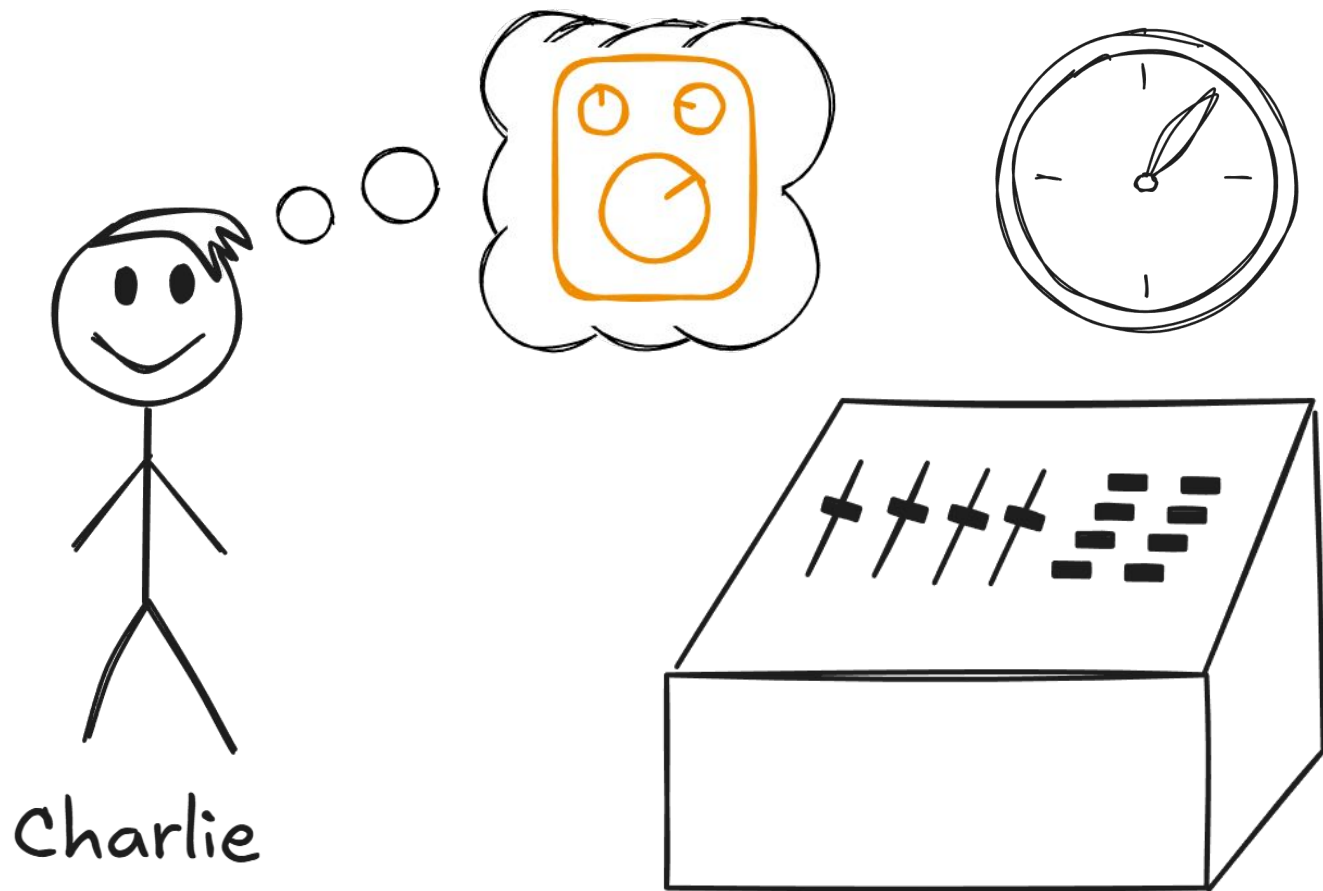


Charlie

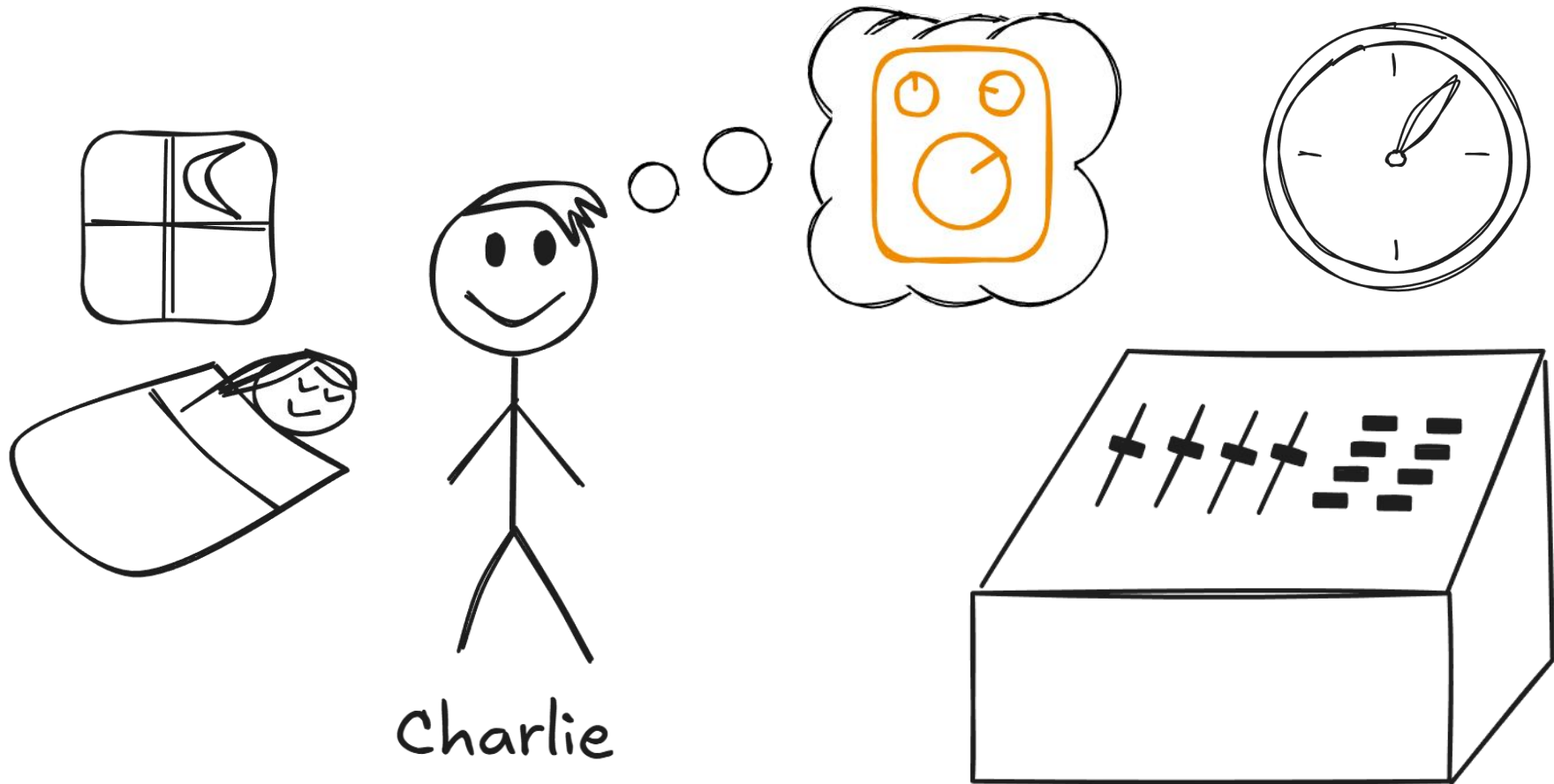




Charlie

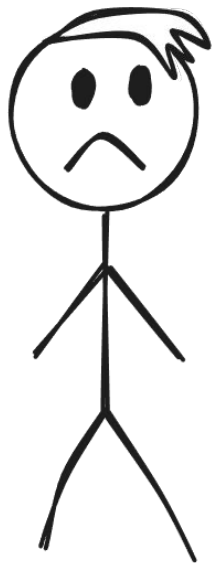


Charlie



Charlie

???



Charlie



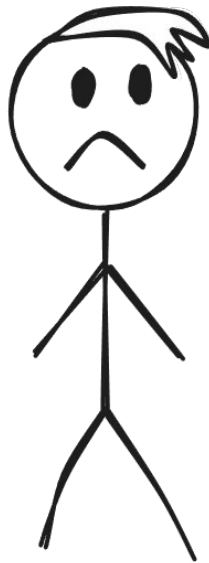
JUICE

x

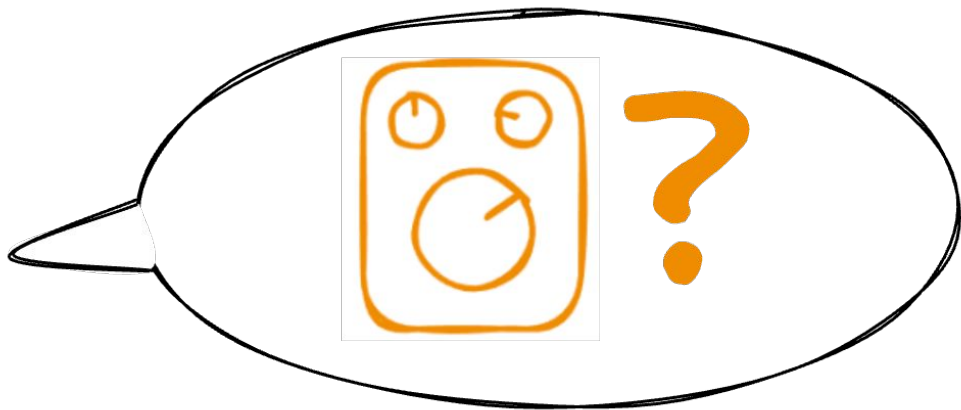
WolfSound



???



Charlie

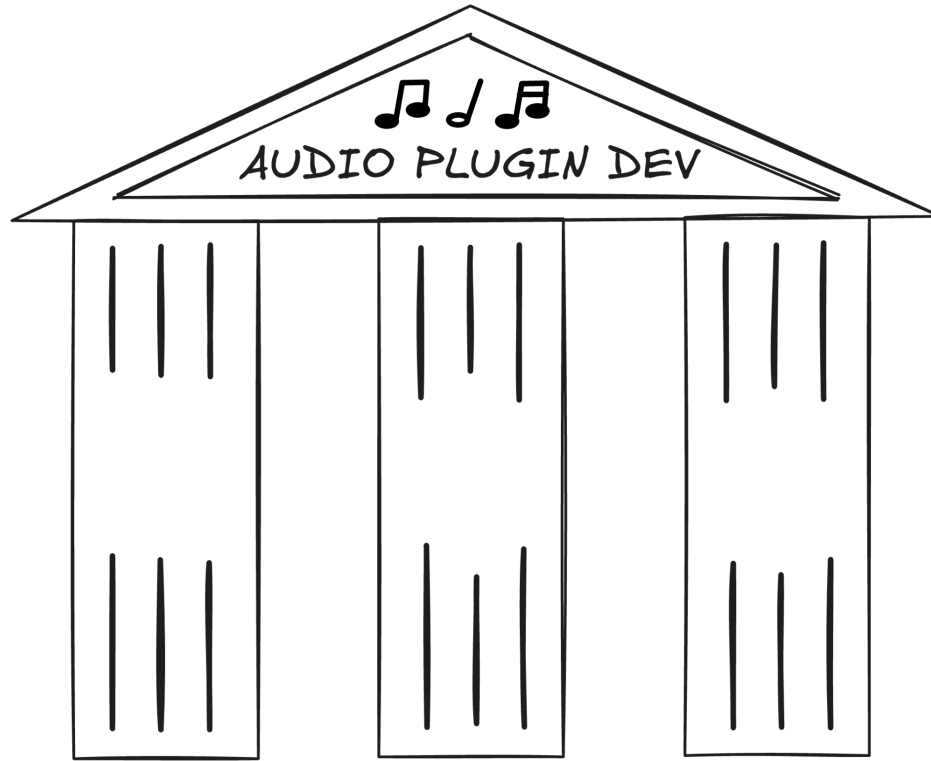


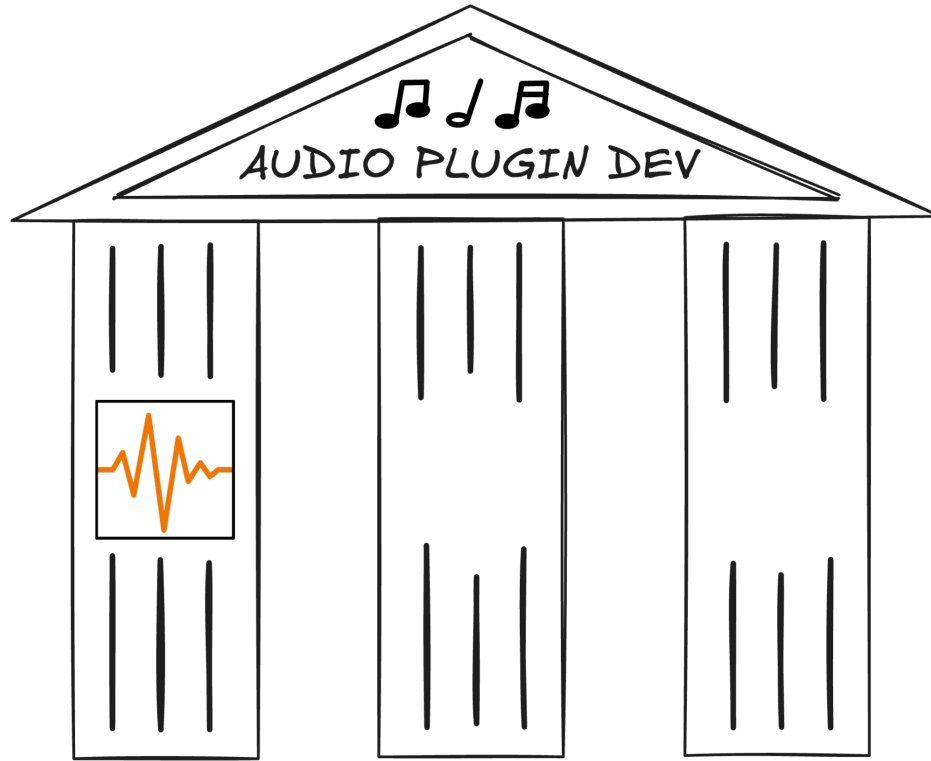
JUCE

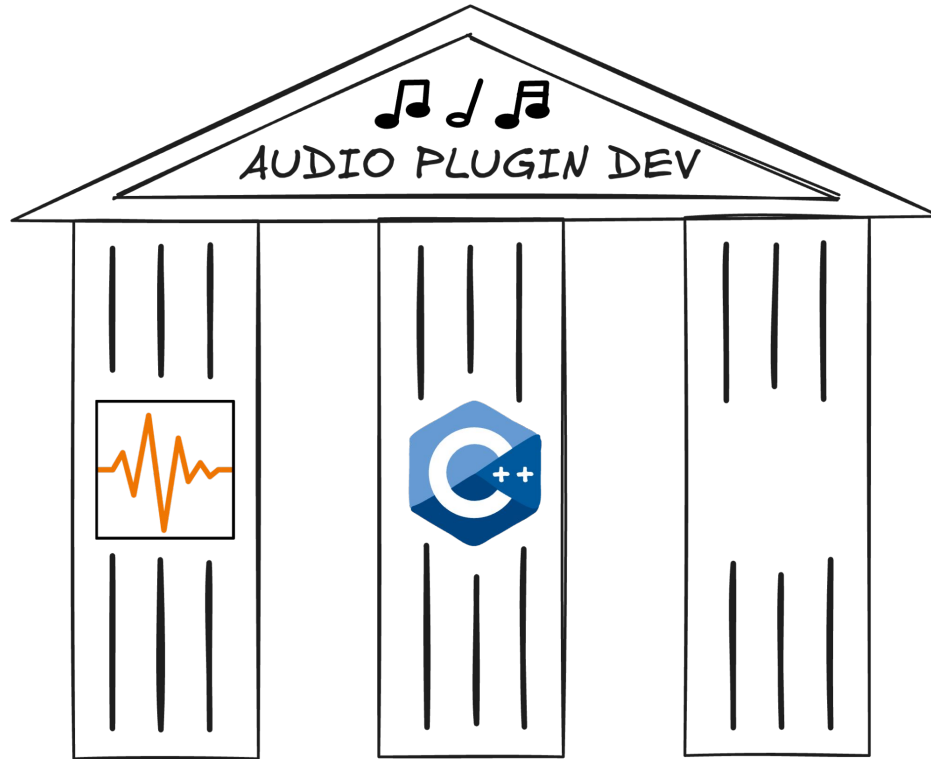
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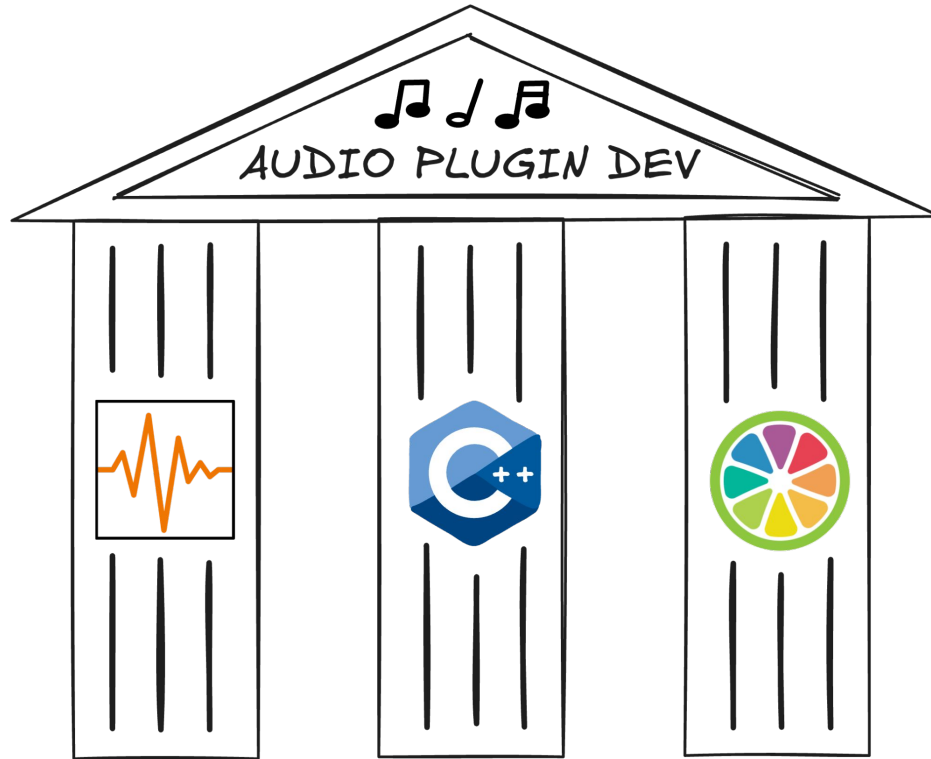
WolfSound



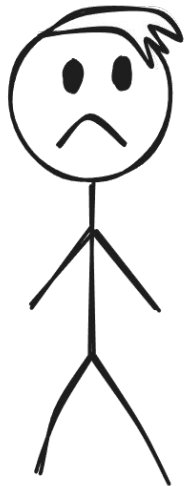




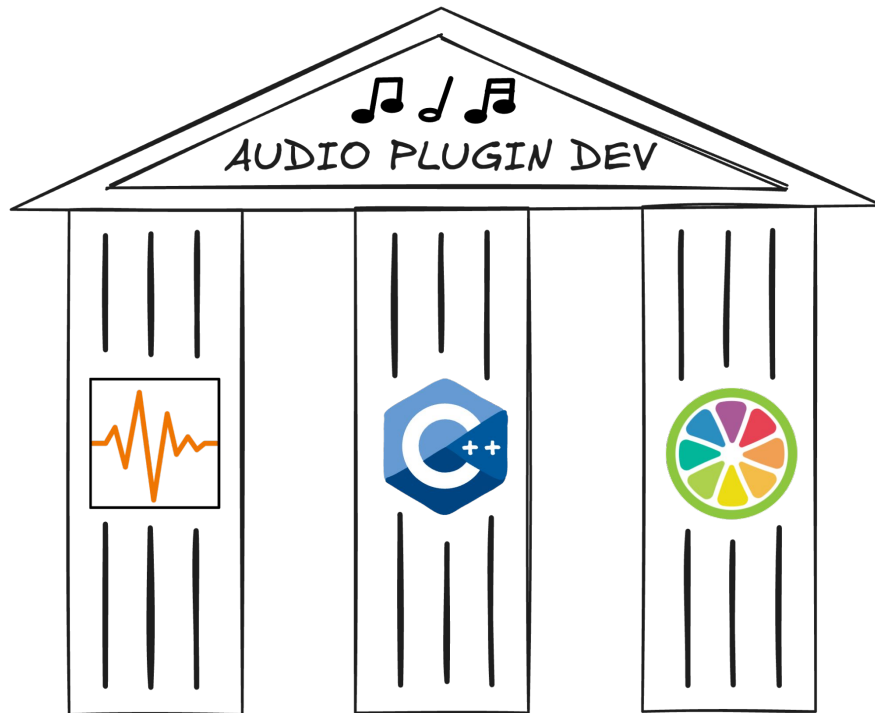


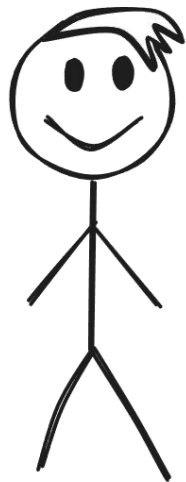


???



Charlie

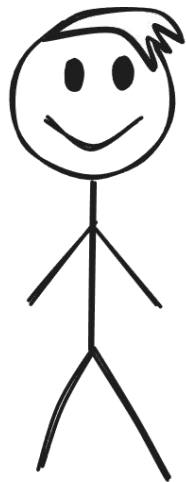




Charlie



DSPPro



Charlie



DSPPro



JUCE

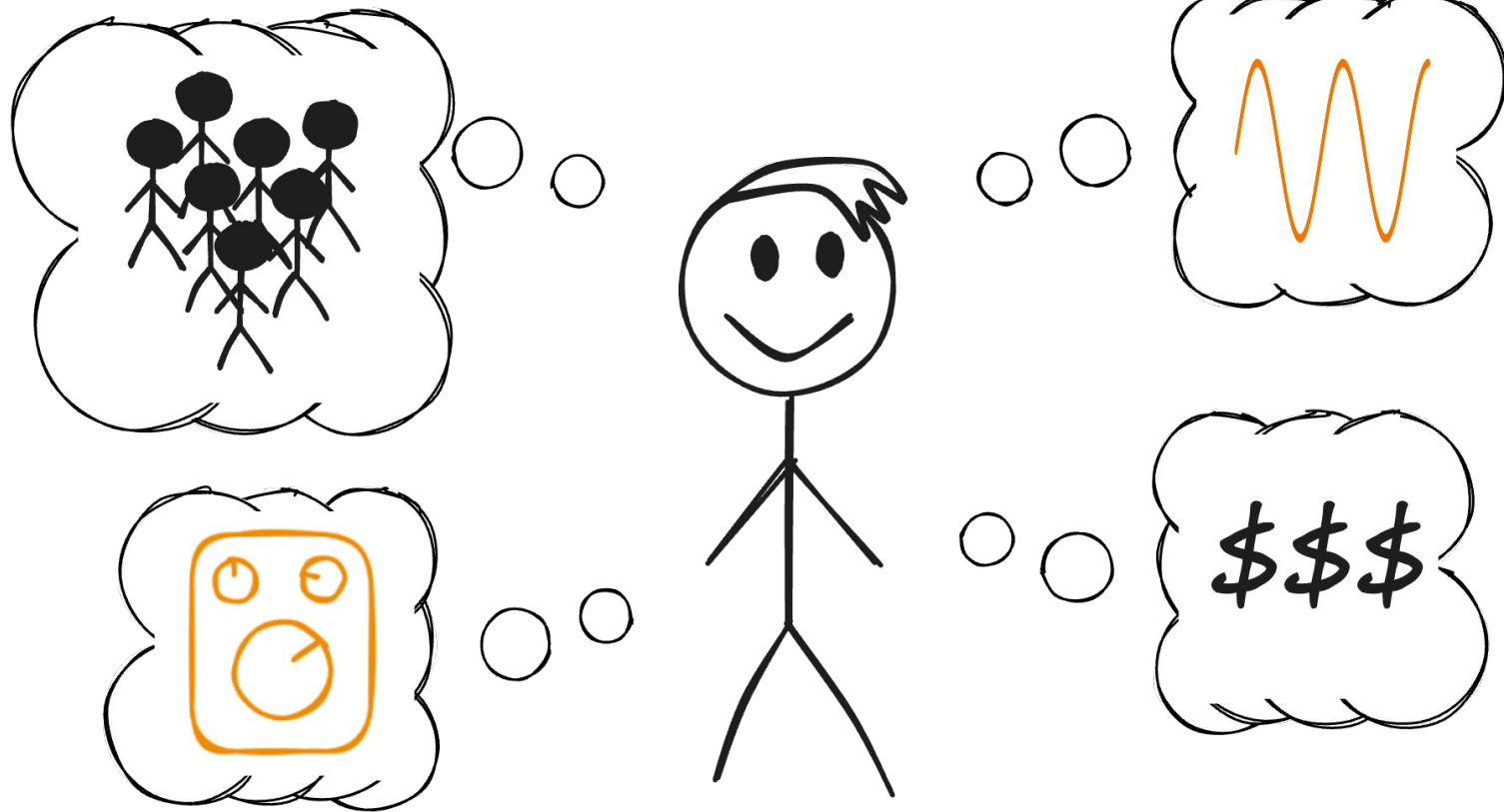
x

WolfSound



What's in the box?





Charlie

TODO plugin

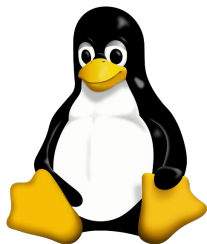


Complete plugin



Getting started (modules 1 & 2)

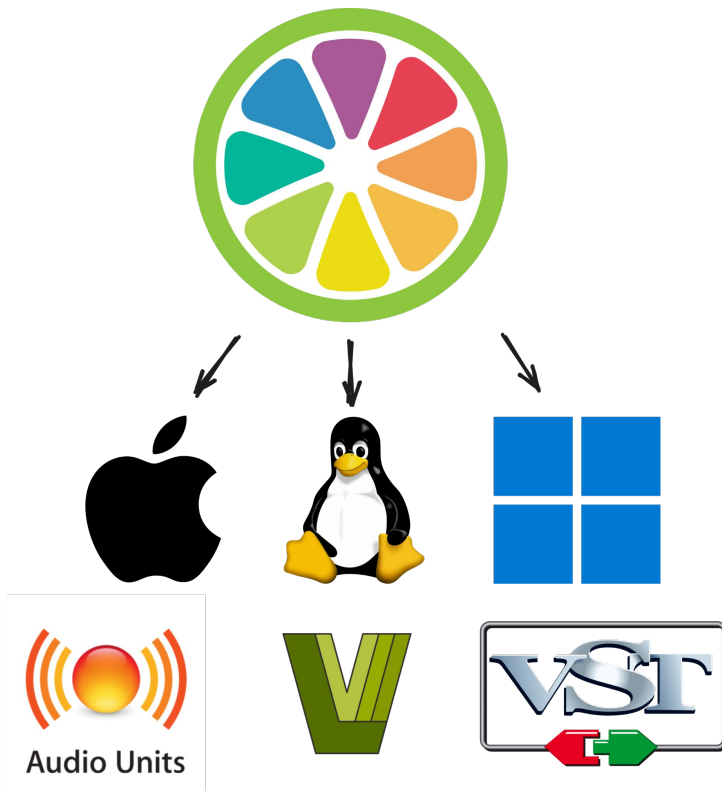
Developer environment



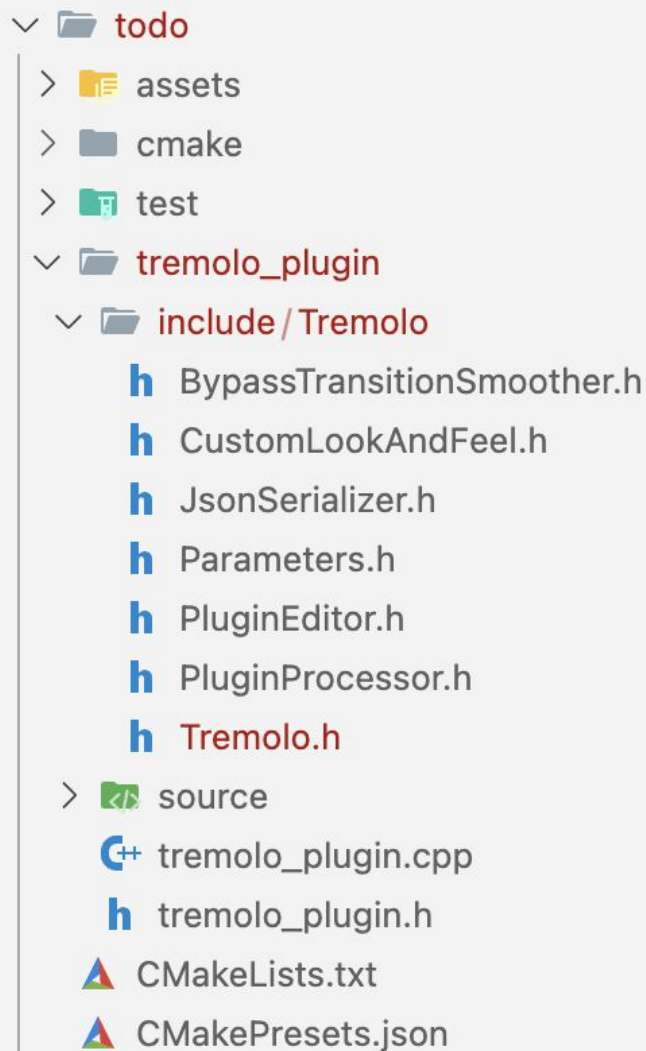
Audio plugin ecosystem



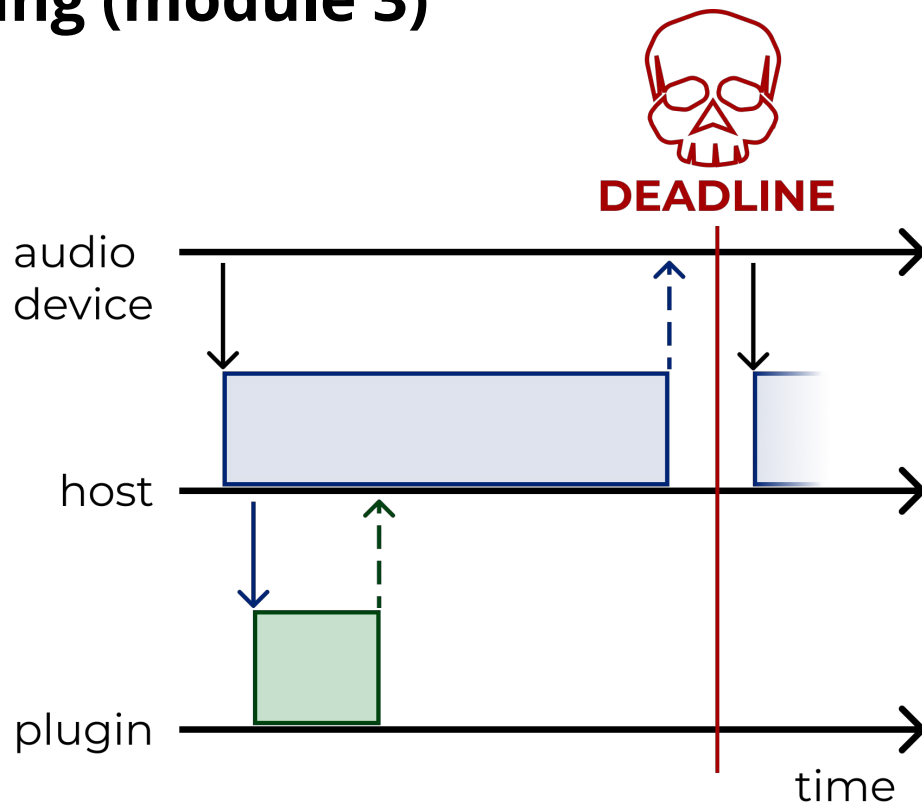
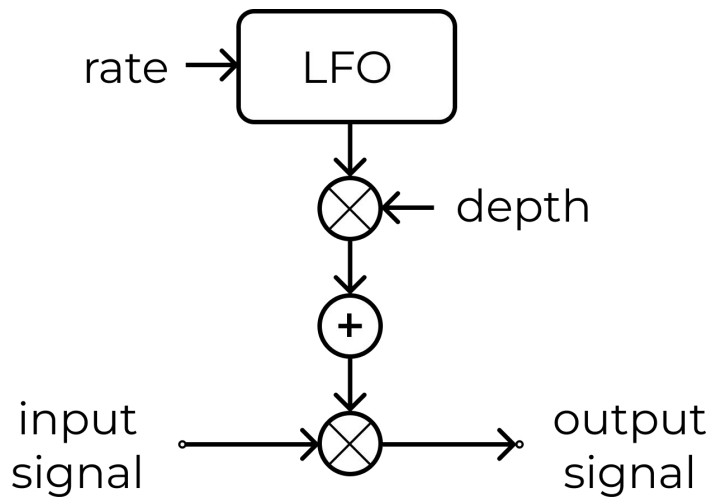
Why JUCE? (module 2)



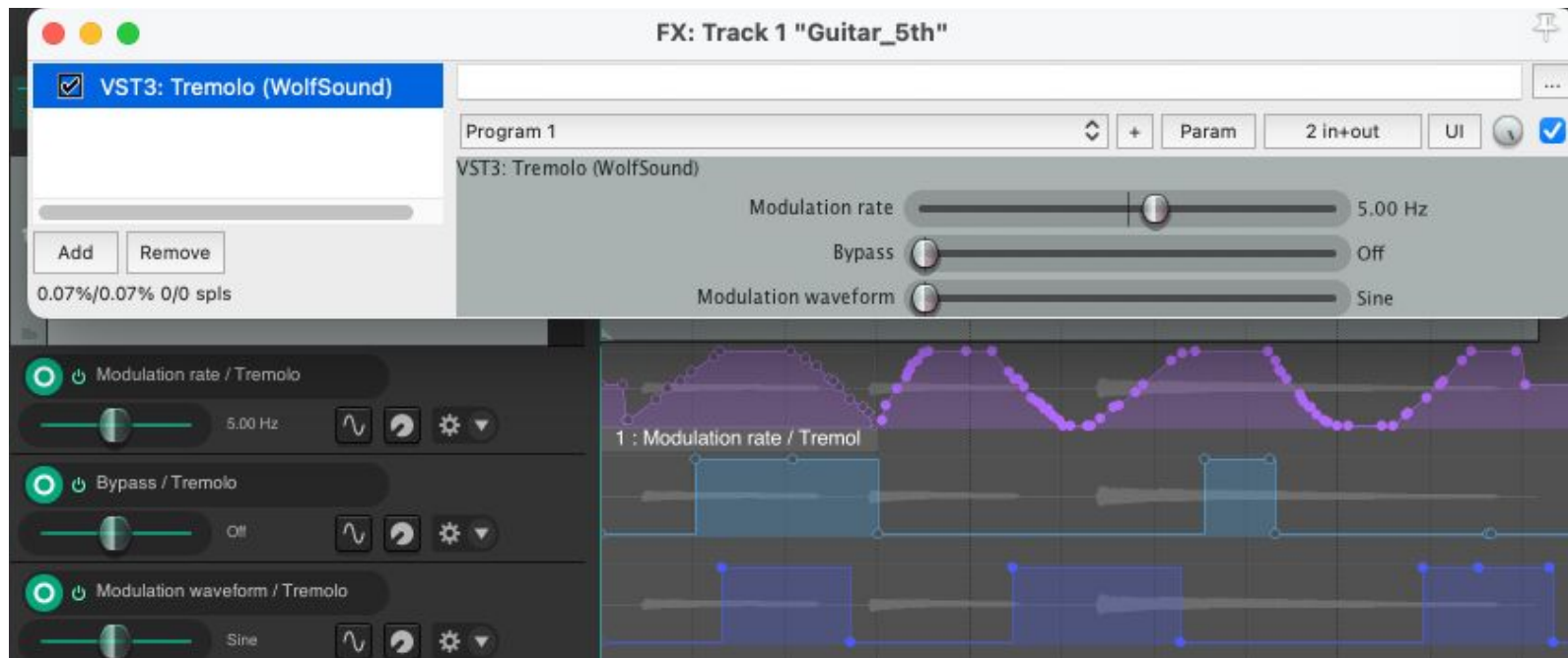
TODO plugin skeleton



DSP & Real-time programming (module 3)



Plugin parameters (module 4)



User interface development (module 5)



Plugin diagnostics (module 6)

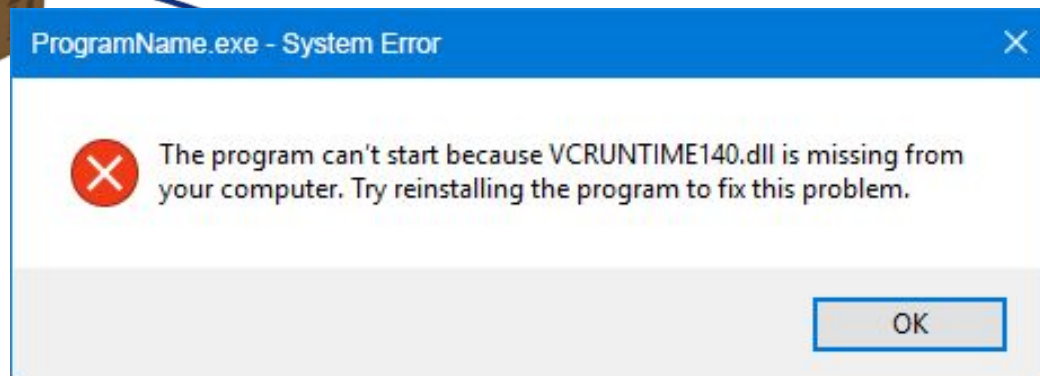
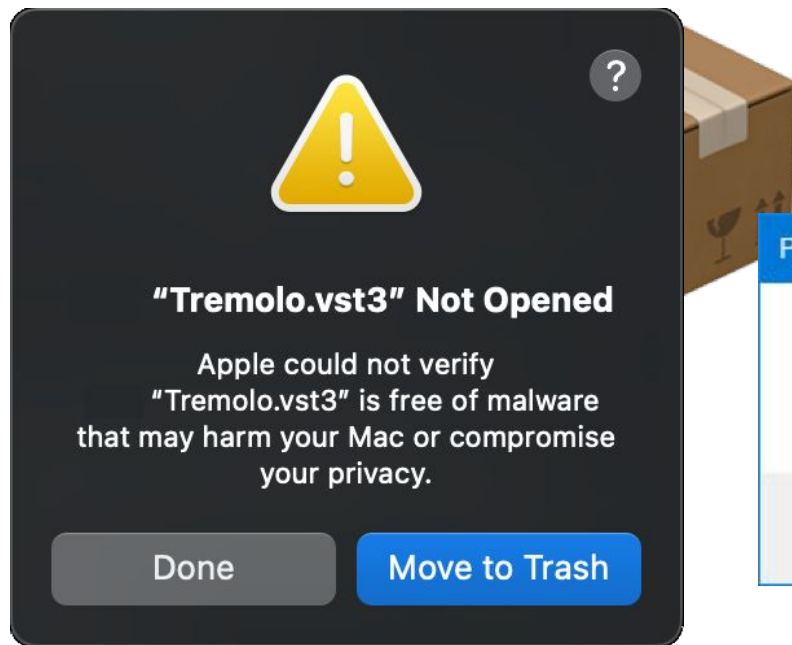
- DAW testing
- `jassert()`
- unit tests
- debugging
- auval
- VST3 validator
- pluginval
- sanitizers



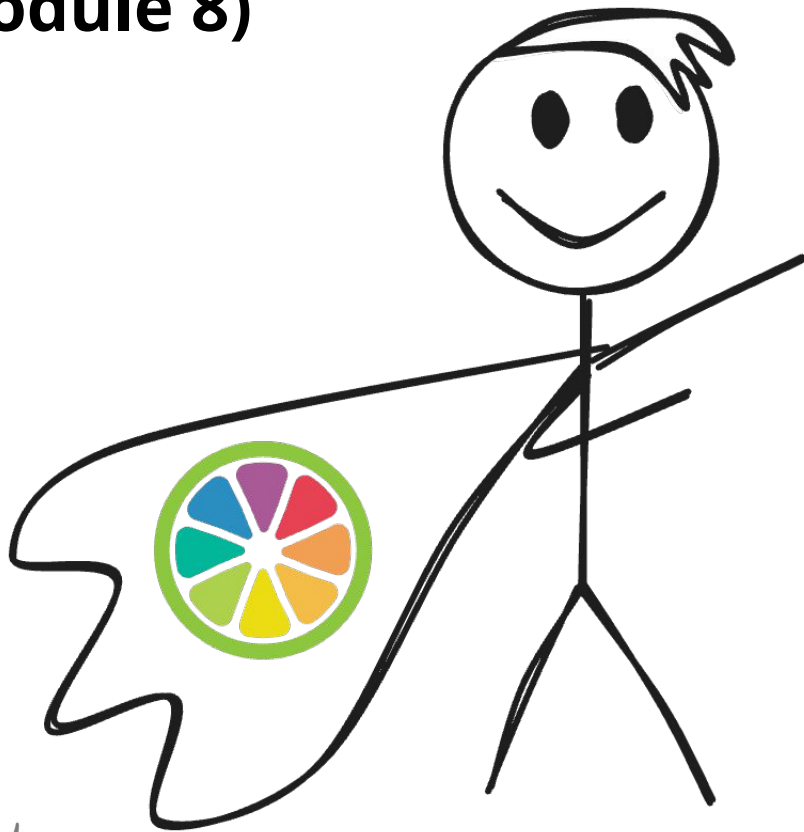
Plugin distribution (module 7)



Plugin distribution (module 7)



What to do next (module 8)



All you need to build an audio plugin

- Dev environment (module 1)
- Audio plugin ecosystem (module 2)
- Why JUCE? (module 2)
- Audio processing (module 3)
- Plugin parameters (module 4)
- User interface (module 5)
- Plugin diagnostics (module 6)
- Distribution (module 7)
- Where to find more info (module 8)

Course content

- 8 modules
- 50 lessons
 - coding assignments
 - quizzes and prompts
- 16 "stretch" assignments
- No AI-generated content
- All for free



What's in it for you?

Beginners

- Students
- Musicians
- Music producers
- Sound engineers
- Non-audio software devs

Create your first plugin!

Non-JUCE audio devs

- Solidify your knowledge
- Increase competitive advantage

Companies

- Educating managers & product owners
- In-house training
- Materials & feedback: info@juce.com

Schools, universities, educators

- Aid in coursework preparation
- Supplementary material
- Materials & feedback: info@juce.com

JUCE developers



JUCE developers

- Set the plugin version to **0.0.0** to force the DAW to rescan it

JUCE developers

- Set the plugin version to `0.0.0` to force the DAW to rescan it
- A JUCE component should either `paint()` or have children

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JUCE developers

- Set the plugin version to `0.0.0` to force the DAW to rescan it
- A JUCE component should either `paint()` or have children
- `juce::JSON` and `juce::Serialisation`
- *pluginval* runs *auval* as a part of its test suite on macOS

Has the course influenced JUCE development?

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- Removing roadblocks for beginners

Has the course influenced JUCE development?

- Removing roadblocks for beginners
- (possible) Parameter- and threading-related API changes

Thank you!

- JUCE team (especially Reuben!)
- Sudara Williams
- Samo Korošec
- JUCE forum members
- Beta-testers

How to get started?

1. Go to wolfsoundacademy.com/juce
2. Register
3. Start consuming the lessons
 - a. video / audio / PDF transcript
4. Do the quizzes
5. Work on the assignments and the plugin project on a desktop OS
6. Contact us: info@juce.com

