# C++ Club UK Meeting 121

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## Perhaps it's time for a more opinionated dialect of C++

- Reddit
- Should I litter my code with (the correct) attributes for every function, or just leave it pretty?

### Latest C++: theory vs. reality

- Reddit
  - Godot game engine C++ standard thread on GitHub

#### C++ vs Rust performance

- Reddit /r/cpp
  - Reddit /r/rust

If you were allowed to make breaking changes to the C++ specification, what features would you modify/replace/remove to make the language better?

Reddit

#### A Year of Conference Talks from the Microsoft C++ Team

- Sy Brand
  - Reddit

#### C/C++ Search Extension

- Website
  - Reddit

#### Modern C++: Snippets and Examples

- Alan Freitas
  - Reddit

# Modern C++ Tip of the Week

Quantlab

#### **INI-config**

A single-header C++20 library that converts INI-formatted string literals to a key-value pair list at compile-time.

- GitHub
  - Reddit

```
1 #include "ini config.hpp"
2
  constexpr auto config = R"(
4 [Cat]
5 color = gray
6 lives = 9
 7 )" ini;
8
9 for (auto kvp : config) {}
10 for (auto kvp : config.section("Cat")) {}
11 config.get("Cat", "lives"); // => "9"
12 config.get<int>("Cat", "lives"); // => 9
13 config.get("Dog", "lives"); // => ""
```

# mocxx: a versatile C++ function mocking framework based on Frida, by Guardsquare

No macros! Doesn't support mocking virtual functions yet.

- Reddit
  - GitHub (C++17, GPL-3.0)
    - Frida Dynamic instrumentation toolkit for developers, reverse-engineers, and security researchers
  - Explanatory blog post at Guardsquare

# Compile 1 Million Lines Of C++ In ~2 Minutes With A 16 Core Ryzen 9 5950x

- Embarcadero
  - Reddit

Dev-C++

A fast, portable, simple, and free C/C++ IDE for Windows, built in Delphi

GitHub

# Using std::list::splice to implement a LRU cache

- Article on nextptr
- std::list::splice

# What should the state of a moved-from object be?

- Raymond Chen
  - Reddit

# Reducing Memory Consumption in Visual Assist

- Blog post
  - Reddit

#### dont\_deduce

- artificial::mind
  - Reddit

#### C++11

```
1 template <class T> struct foo_t { using type = T; };
2 template <class T> using foo = typename foo_t<T>::type;
```

#### C++20

```
template <typename T>
auto operator+(
   vec3<T> const& a,
   std::convertible_to<T> auto const& b
  ) -> vec3<T>;
```

# Writing a custom iterator in modern C++ (C++17)

- Article
  - Reddit

## C++ for Swift developers

- Sidharth Juyal
  - Reddit

Wrapping C++ for use in Swift

Reddit

#### Tracy Profiler

A real time, nanosecond resolution, remote telemetry, hybrid frame and sampling profiler for games and other applications.

Tracy supports profiling CPU (C, C++11, Lua), GPU (OpenGL, Vulkan, OpenCL, Direct3D 12), memory, locks, context switches, per-frame screenshots and more.

GitHub

## **Functional programmers**

