# C++ Club UK Meeting 109

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2020-06-11

## C++ is now the only language to appear in three HOPLs in a row

Reddit

#### **Papers**

- HOPL-II, 1993 A History of C++: 1979-1991
- HOPL-III, 2007 Evolving a language in and for the real world: C++ 1991-2006
- HOPL-IV, 2020 Thriving in a crowded and changing world: C++ 2006-2020

#### C++: The Next Seismic Shift

#### Dale Mellor

Reddit

The next seismic shift for C++ would be the provision of a mechanism for the user to present compile-time code, as 'beige' C++: code which programmatically re-writes the final code which gets compiled to object and then to machine code.

GNU Guile

#### What kinds of C++ jobs are available apart from game development?

- Reddit
- What are you writing in C++ at work?

#### How to ask for C++ coding help

- Kate Gregory
  - Reddit
  - · #include Discord
  - Cpplang Slack

<...> if you want free mentoring and consulting from successful people, you can have it! All you need to do is ask. But if you expect your helpers to do most of the work in helping you, and to take instruction and direction from you, you're going to get a lot less help than if you know how to be helped effectively.

#### **C-Reduce**

C-Reduce is a tool that takes a large C, C++, or OpenCL file that has a property of interest (such as triggering a compiler bug) and automatically produces a much smaller C/C++ file that has the same property. It is intended for use by people who discover and report bugs in compilers and other tools that process source code.

Home

### We need to do better than "cin »" for new programmers

- · read on GitHub
  - Reddit
- scnlib: scanf for modern C++

### Let's unravel the secrets behind C++17's structured bindings

- Jean Guegant
  - Reddit

## Reducing {fmt} library size 4x using Bloaty McBloatface

- Viktor Zverovich
  - Reddit
- Bloaty McBloatface: A size profiler for binaries (Google)

# The STL Algorithm Cheat Sheet, by Conor Hoekstra

- YouTube
- PDF
- Reddit

# The "OO" Antipattern, by Arthur O'DWyer

- Article
  - Reddit

## Naming Things: Implementer vs. User Names, by Jonathan Müller

- Article
  - Reddit 1
  - Reddit 2

# std::polymorphic\_value + Duck Typing = Type Erasure, by Jonathan Müller

- Article
  - Reddit
- polymorphic\_value (GitHub)
- Better Code: Runtime Polymorphism Sean Parent

#### **Modern C++ Template**

- Filip Dutescu (GitHub)
  - Reddit

A template for modern C++ projects using CMake, clang-format and unit testing

## Runtime Polymorphism with std::variant and std::visit

- · Bartek Filipek
  - Reddit

## **Testing C++ signal-slot libraries**

• Julien Jorge

(Don't write on Medium - GD)

#### Cefal: library of functional typeclasses using C++20 concepts

- GitHub (C++20, BSD-3-Clause)
  - Reddit

## C++ Lambdas, Threads, std::async and Parallel Algorithms

- B. Filipek
  - Reddit

#### CMake embedded use

• Links

#### **Taskflow**

#### Modern C++ Parallel Task Programming

- Home
- GitHub
- · Taskflow 2.5 announcement on Reddit
- Taskflow C++ Parallel Tasking System, by Manoj Rao

## The Darkest Pipeline - Multithreaded pipelines for modern C++

- GitHub
  - Reddit (Header-only, C++17, Boost Licence)

#### Quote

Titus Winters:

Software engineering is programming integrated over time.