# C++ Club UK Meeting 110

Gleb Dolgich

2020-07-02

## June mailing

- mailing2020-06
  - Reddit

## **Select papers**

- P2184R0 HOPL: Thriving in a Crowded and Changing World: C++ 2006–2020
- P2164R1 views::enumerate
- P2093R0 Formatted output

C++20	Proposed
<pre>std::cout &lt;&lt; std::format("Hello, {}!", name);</pre>	<pre>std::print("Hello, {}!", name);</pre>

## Best online data structures /algorithms c++ courses?

Reddit

#### Links

- Coursera: Algorithms, Part I (Prinston University)
- Book: Competitive Programmer's Handbook, by Antti Laaksonen, 2018

In a hypothetical situation, backwards compatibility is no longer an issue in C++. What would you change about the core language or the standard library?

- Reddit
  - · Rust gets mentioned!

## C++11 Guide: A Practical Guide for the Everyday Programmer

- Stuart Wheaton
  - Reddit

C++11 posted on June 14, 2020?

# Illustrative Boost 1.73 epoch report

- Report
  - Reddit

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

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

# **Type Erasure by Andrzej**

- Part 1
- Part 2
- Part 3
- Part 4

## **Type Erasure with Merged Concepts**

• Post by Andreas Herrmann

# On the Tension Between Object-Oriented and Generic Programming in C++, and What Type Erasure Can Do About It

· Article by Thomas Becker

## **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

## 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

#### **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)

## C++ based Rest web server for large scale production environment

- Reddit
- C++ libraries for restful micro services development

# Testing a Modern C++ workflow by coding a base85 decoder from scratch

- German Diago Gomez
  - Emacs
  - Meson
  - C++20
- · Tom's Data Onion

## An Introduction to Parallel Computing in C++ (2016)

#### Notes

The goal of these notes is to introduce the reader to the following.

- Parallel computing in imperative programming languages and C++ in particular, and
- Real-world performance and efficiency concerns in writing parallel software and techniques for dealing with them.

#### Lambda Lambda

- · Barry Revzin
  - Reddit



# Michael Park @mcypark

🤵 @BarryRevzin

Haskell: λ

Rust: lambda

C++: laaaaaaaaaaaambbdaaa

thread

10h • 18/06/2020 • 15:11

# C++ STL by Example

- Douglas Schmidt, YouTube playlist
  - Reddit

## C++ is too slow to compile

Reddit

#### **Tools**

- Build time profiler for Clang
- Clang Build Analyzer

# C++ Is The Undefined Language

Yair Chuchem

## The importance of choosing the right data type

how showers are int temperature; supposed to work how showers work bool temperature;