C++ Club UK Meeting 125

Gleb Dolgich

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Visual Studio 2019 update

- Address Sanitizer for MSVC
 - Reddit
- IntelliSense Improvements
 - Reddit

How does Modern C++ (C++20) compare with Rust?

Reddit

Even if you don't use Rust learn it. It will make you a better C++ programmer. #

LIEF: Library to Instrument Executable Formats

This project aims to provide a cross platform library to parse, modify and abstract ELF, PE and MachO formats.

- Website
- Docs
- GitHub (Apache 2 Licence)
- Profiling C++ code with Frida
 - Frida website
 - Frida on GitHub
 - Frida Profiler

Enforcing Signatures On Templated Callbacks

- Philippe M. Groarke
 - Reddit

Improving Print Logging with Line Pos Info & Modern C++

- B. Filipek
 - Reddit

The perils of the accidental C++ conversion constructor

- Raymond Chen
 - Reddit

No one hates C++ more than the people who love C++. #

Making Win32 APIs More Accessible to More Languages

- Microsoft
 - C++/WinRT
 - cppwin32

C++ and game engines

Reddit

Hey, I started out with C++ 3 months ago and really love it. I already have some experience in Unity, but I'd like to use C++. Is there any engine you would recommend me to try out? I know about Unreal Engine but I can't find any good tutorials for how to use C++ with Unreal Engine. Is there any other option or a tutorial series or anything you could recommend me?

Game developers, what compiler optimization setting do you use?

Reddit

EnTT 3.6.0

Gaming meets modern C++ - a fast and reliable entity component system (ECS) and much more.

- Announcement on Reddit
 - GitHub (C++17, MIT)

Better CMake

Videos by Jefferson Amstutz

Solving differential equations with LLVM

Heyoka is a C++ library for the integration of ordinary differential equations (ODEs) via Taylor's method. Notable features include:

- support for both double-precision and extended-precision floating-point types (80-bit and 28-bit),
- the ability to maintain machine precision accuracy over tens of billions of timesteps, batch mode integration to harness the power of modern SIMD instruction sets,
- a high-performance implementation of Taylor's method based on automatic differentiation techniques and aggressive just-in-time compilation via LLVM.

Links

- GitHub (C++17, MPL-2.0)
 - Docs
 - Reddit

TTauri: modern retained-mode GUI library in C++20

- GitHub
 - Reddit

C++20 Coroutines: sketching a minimal async framework

- Jeremy Ong
 - Reddit

New project flowchart

