

# C++ Club Meeting Notes

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2018-06-28

## Announcement

- ▶ **clangd** as an additional (not you Windows!) C++ language engine

## Announcement

- ▶ convert basic macros to constexpr
- ▶ experimental code analysis features
- ▶ Template IntelliSense
- ▶ clang-format
- ▶ improved CMake support
- ▶ C++ Quick Info Tooltips (show expanded macros)

# What is a good Package Manager for C++?

## Reddit thread

*No matter which one you use, you'll probably be pretty disappointed.*

# std::variant Doesn't Let Me Sleep, by Pablo Arias (ht to Gergely Petrik)

- ▶ [Post](#)
- ▶ [The most valuable values - Juanpe Bolívar - Meeting C++ 2017](#)
- ▶ [Overload: Build a Variant Visitor on the Fly](#)
- ▶ [folly/Overload.h](#)

## Raffle (C++17, ranges, asio, json)

Fetches the names of all RSVP members of a meetup event and randomly chooses The Raffle Winner.

- ▶ [Code](#)
- ▶ [Reddit thread](#)

# Diego Franco - LauncherOne rocket with C++ engine - CppCon 2017

cppCON 2017  
THE C++ CONFERENCE • BELLEVUE, WASHINGTON



LauncherOne Rocket with C++ Engine

Diego Franco - Virgin Orbit



DIEGO FRANCO

LauncherOne rocket  
with C++ engine

CppCon.org


# Diego Franco - LauncherOne rocket with C++ engine - CppCon 2017 (cont.)

- ▶ Radiation
  - ▶ Single Event Upset (SEU)
  - ▶ Single Event Latch (SEL)
  - ▶ Error Correcting Code (ECC)
  - ▶ Memory scrubbing
  - ▶ Radiation-hardened components
- ▶ Log or hard error
  - ▶ Log for each requirement
  - ▶ Not all errors are hard errors
  - ▶ Depends on system under test – some systems are more expensive to test than others



- ▶ Release notes
- ▶ P0645
- ▶ Support for ranges, containers and types with tuple interface






# {fmt} supports colours

 Victor Zverovich  
@vzverovich 2 Replies, 1 Quote

{fmt} now has experimental RGB color support enabled with FMT\_EXTENDED\_COLORS macro. Thanks to GitHub user Remotion! [#fmtlib](#) [#formatting](#) [#cpp](#)

23/06/2018, 15:14 (Today)  
Twitter Web Client


7 Likes 0 Retweets Thread >

```
viz-mbp:fmt viz$ cat color.cc
#define FMT_EXTENDED_COLORS
#define FMT_HEADER_ONLY
#include "fmt/format.h"

int main() {
    fmt::print(fmt::color::steel_blue, "Much color, so steel, wow\n");
}






viz-mbp:fmt viz$ g++ color.cc -std=c++11 -Iinclude -ofcolor
viz-mbp:fmt viz$ ./color
Much color, so steel, wow
```

 Victor Zverovich  
@vzverovich

Wow, Qt Creator shows the actual color in a tooltip when you hover the cursor over `fmt::rgb`. Very cool. [#qtcreator](#)

23/06/2018, 15:42 (Today)  
Twitter Web Client

1 Likes 0 Retweets Thread >

```
TEST(ColorsTest, Colors) {
    EXPECT_WRITE(stdout, fmt::print(fmt::rgb(255,20,30), "rgb(255,20,30)"),
        "\x1b[38;2;255;020;030mrgb(255,20,30)\x1b[0m");
    EXPECT_WRITE(stdout, fmt::print(fmt::color::steel_blue, "blue"),
        "\x1b[38;2;000;000;255mblue\x1b[0m");
}
```

zapcc is a caching C++ compiler based on clang, designed to perform faster compilations.

- ▶ [Code](#) (LLVM)

# Getting started with Meson in C++

- ▶ Part 1
- ▶ Part 2
- ▶ Part 3

► [Article](#)

► [Code](#)

# NanoRange: a MSVC-compatible Ranges TS implementation for C++14

- ▶ [Code \(BSL\)](#)
- ▶ [Reddit thread](#)

