C++ Club Meeting Notes

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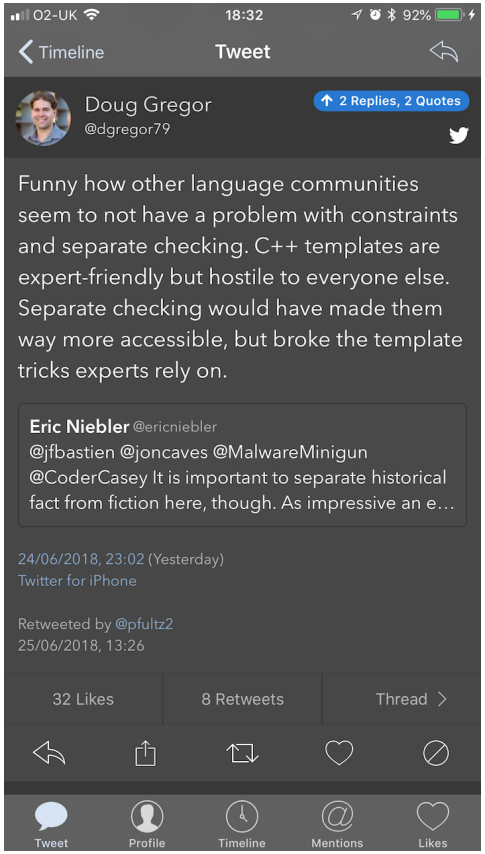
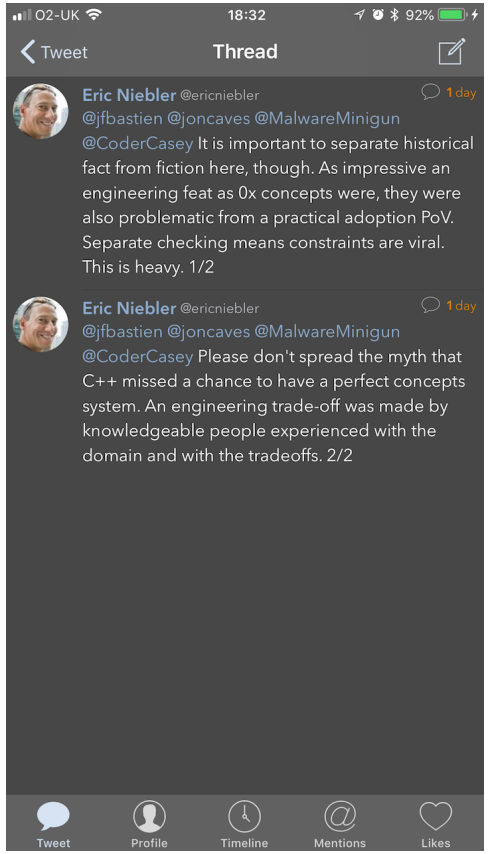
2018-07-12

Combined proposal for short concepts syntax

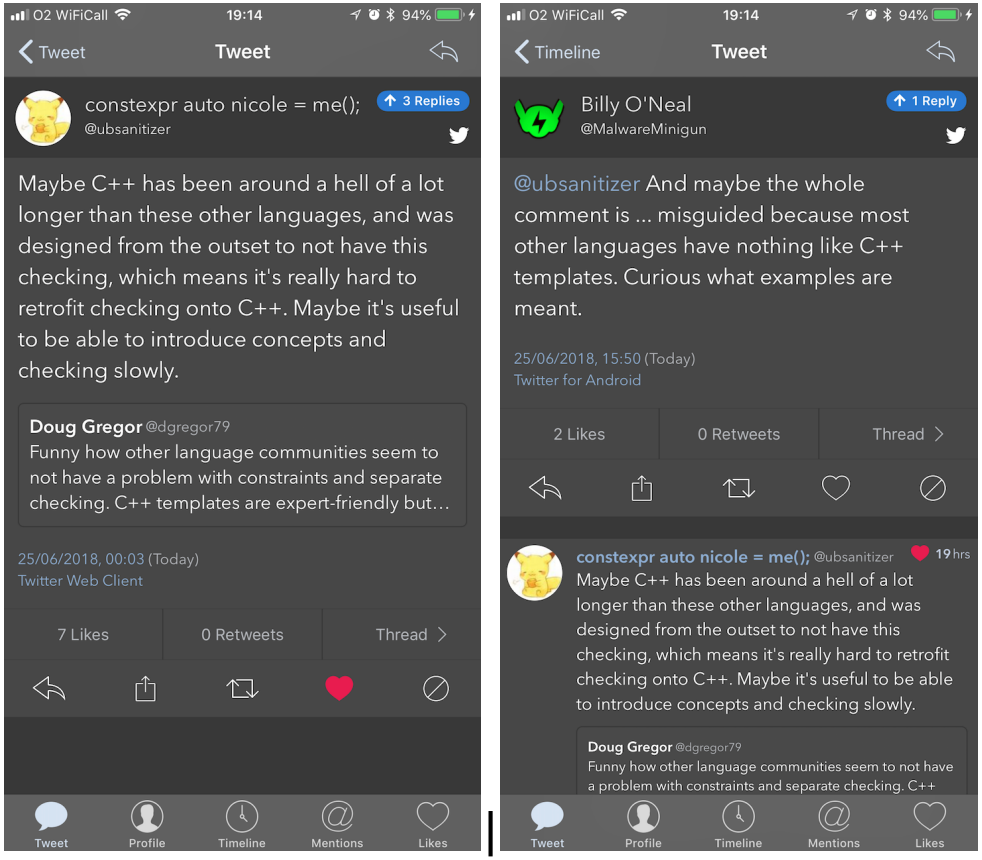
- Combined proposal: “Yet another approach for constrained declarations”

Twitter: concepts and constraint checking





Twitter: concepts and constraint checking (cont.)



Twitter: Bryce Lelbach

This is horrific:

```
1 int a; std::cout << &a << std::endl;
2 int volatile a; std::cout << &a << std::endl;
```

What's the difference?

- Line 1: Implicitly converts to `void*`, calls `operator<<(ostream&, void*)`.
- Line 2: Implicitly converts to `bool`, calls `operator<<(ostream&, bool)`.

Revisiting Builder Pattern with Fluent API

Post

```
1  class FooBuilder;
2
3  class Foo {
4  public:
5      friend class FooBuilder;
6      static FooBuilder builder();
7  private:
8      Foo() = default;
9      std::string name_;
10 };
```

Revisiting Builder Pattern with Fluent API (cont.)

```
1  class FooBuilder {
2      FooBuilder& name(const char* name) {
3          foo_.name_ = name;
4          return *this;
5      }
6      operator Foo&&() {return std::move(foo_);}
7      Foo build() {return foo_;}
8  private:
9      Foo foo_;
10 }
11
12 FooBuilder Foo::build() {return FooBuilder();}
```

Revisiting Builder Pattern with Fluent API (cont.)

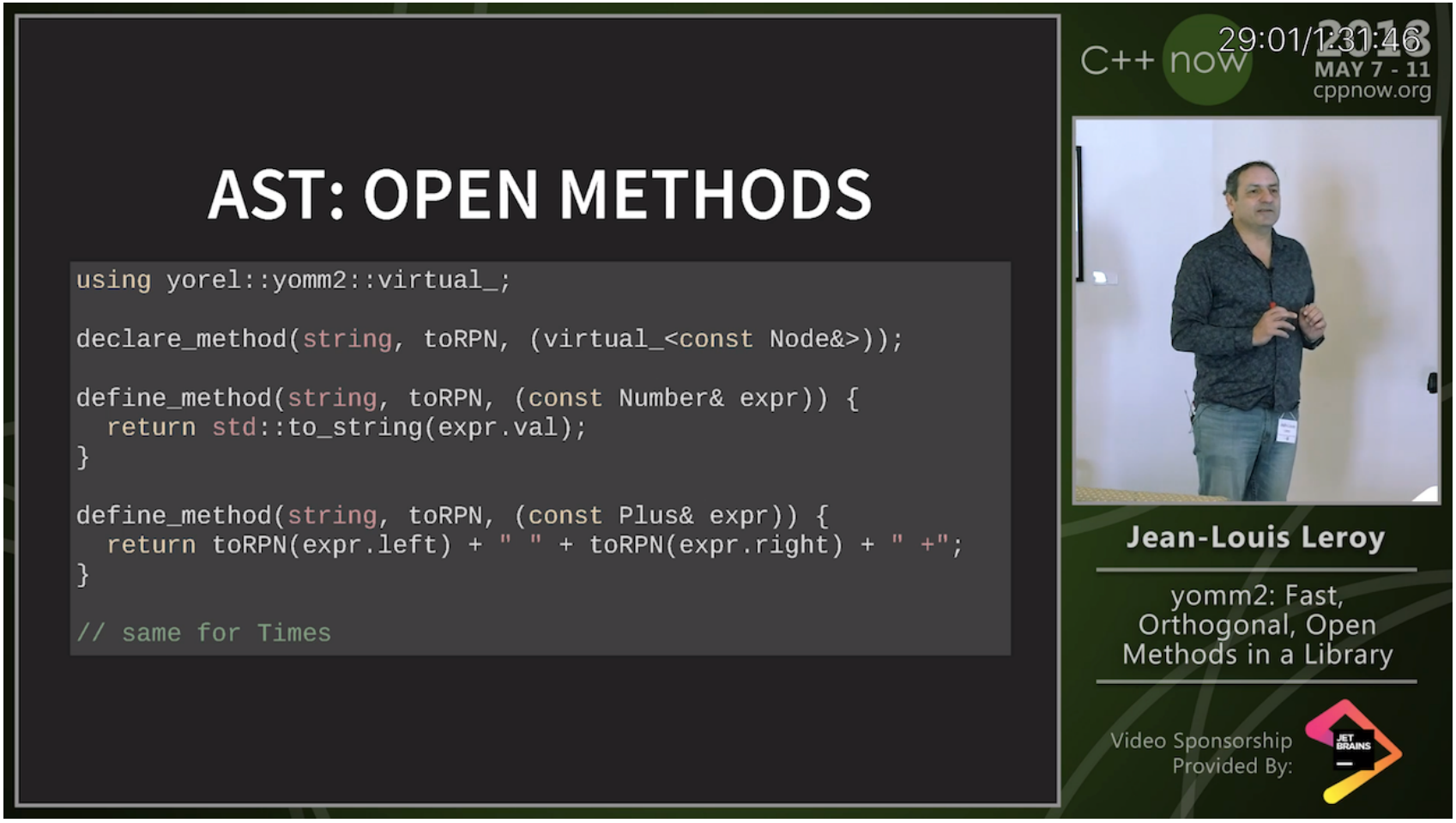
```
1 int main() {
2     Foo foo1 = Foo::builder().name("foo1");
3     Foo foo2 = Foo::builder().name("foo2").build();
4 }
```

The generated optimised code is the same.

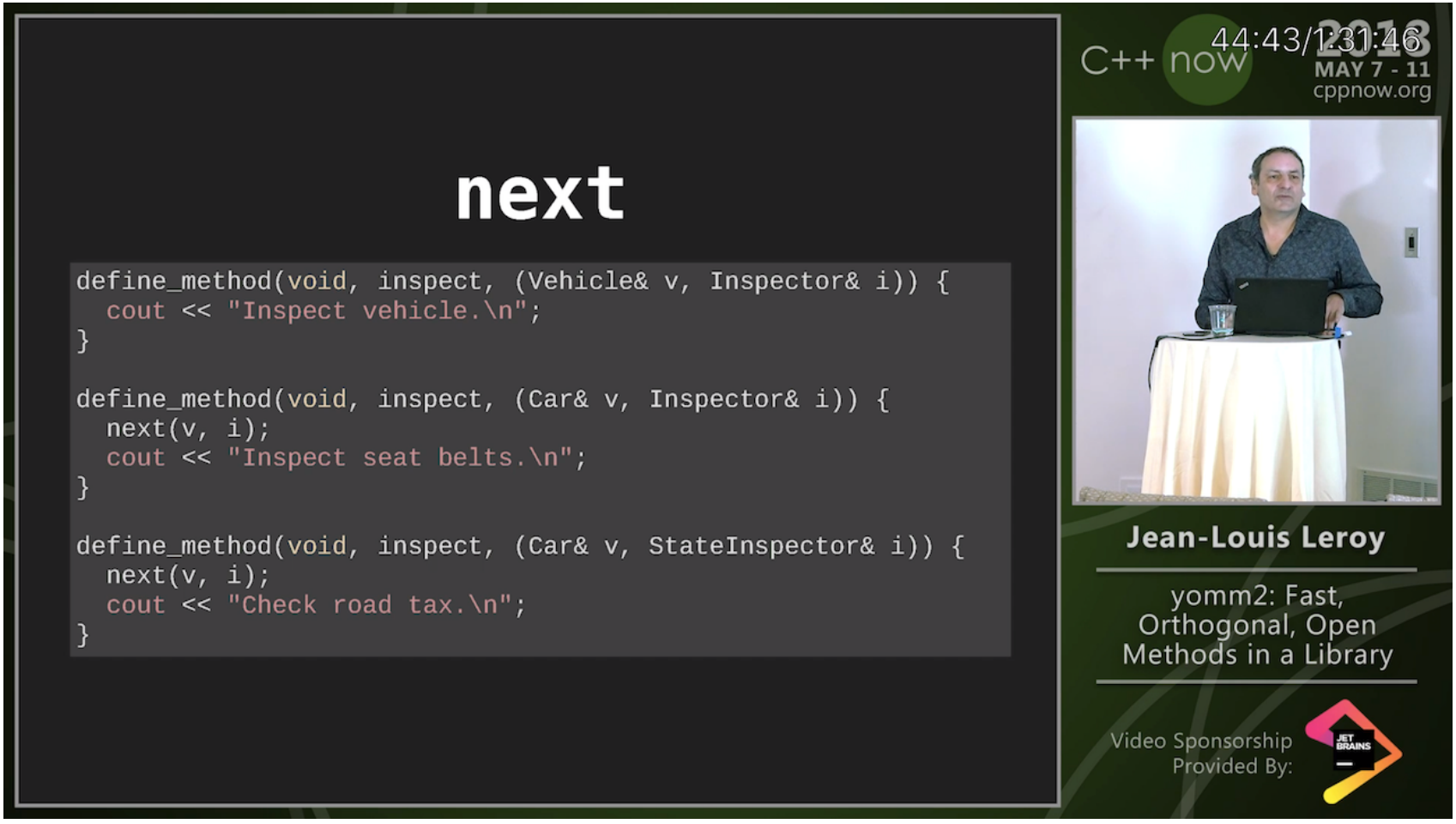
C++Now 2018: Jean-Louis Leroy “yomm2: Fast, Orthogonal, Open Methods in a Library”

- Video
- Code (BSL 1.0)
- Reddit
- Wikipedia: Multiple dispatch
- n2216: Report on language support for Multi-Methods and Open-Methods for C++

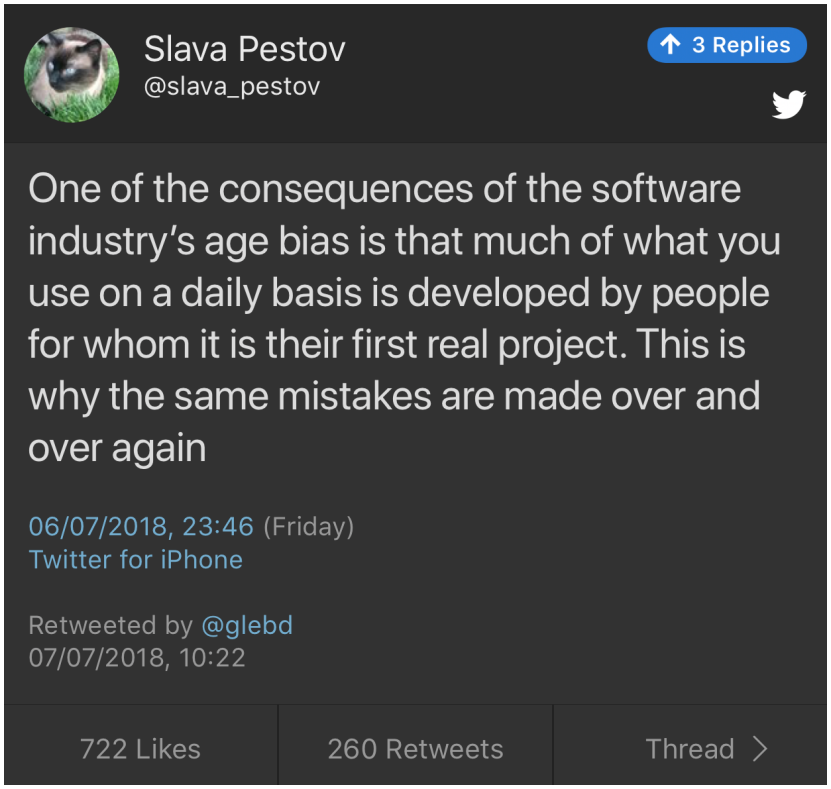
C++Now 2018: Jean-Louis Leroy “yomm2: Fast, Orthogonal, Open Methods in a Library” (cont.)



C++Now 2018: Jean-Louis Leroy “yomm2: Fast, Orthogonal, Open Methods in a Library” (cont.)



Twitter


Slava Pestov
@slava_pestov
3 Replies
One of the consequences of the software industry's age bias is that much of what you use on a daily basis is developed by people for whom it is their first real project. This is why the same mistakes are made over and over again
06/07/2018, 23:46 (Friday)
Twitter for iPhone
Retweeted by @glebd
07/07/2018, 10:22
722 Likes
260 Retweets
Thread