C++ Club Meeting Notes

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Reddit

- PyTorch
- TensorFlow for C++
- Shogun

The sad history of Unicode printf-style format specifiers in Visual C++

Raymond Chen

Reddit

Blog

PyBind11

AnyDuck : A Value Type Erased Type

Steve Downey

Template meta-programming: Some testing and debugging tricks

Ivan Cukic

using VS. typedef

Article

Berkeley Container Library (BCL)

GitHub

Reddit

Corentin Jabot

P0443R11 The Unified Executors Proposal

Eliminating the Static Overhead of Ranges

Colby Pike, Reddit

Without ranges

```
vector<string> child_names;
for (auto& person : all_people) {
    if (person.age < 14) {
        child_names.push_back(person.name);
    }
}
```

With ranges

```
auto children_names =
    all_people
    | filter([](const auto& person) { return person.age < 14; })
    | transform([](const auto& person) { return person.name; })
    | to_vector;
```

Expression templates, ranges, and coroutines

- Wikipedia
- We don’t need no stinking expression templates by Andy G
  - Reddit

Change standard containers' `size()` method to return signed integer?

Reddit

Camomilla by Vittorio Romeo

A Python script that simplifies C++ compiler errors. Useful when using heavily-templated libraries.

GitHub

Is requiring lambdas to explicitly list what they capture a good coding standard?

Reddit

Installing GCC on Windows

- GCC 9
- GCC 8.2 by STL

The arrow operator (1/2)

StackOverflow:

> *The `operator->` has special semantics in the language in that, when overloaded, it reapplies itself to the result. While the rest of the operators are applied only once, `operator->` will be applied by the compiler as many times as needed to get to a raw pointer and once more to access the memory referred by that pointer.*

The arrow operator (2/2)

```
1 struct A { void foo(); };
2 struct B { A* operator->(); };
3 struct C { B operator->(); };
4 struct D { C operator->(); };
5 int main() {
6     D d;
7     d->foo();
8 }
```

Thanks to Martin Waplington for suggesting this.