C++ Club Meeting Notes

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P0443R11 The Unified Executors Proposal

Eliminating the Static Overhead of Ranges

Colby Pike, Reddit

Without ranges

```
1  vector<string> child_names;
2  for (auto& person : all_people) {
3      if (person.age < 14) {
4          child_names.push_back(person.name);
5      }
6  }
```

With ranges

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

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

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

Reddit

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

Reddit

- GCC 9
- GCC 8.2 by STL

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.*

```cpp
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.

P1930R0

Reddit

Robert Ramey:

> *The value of a paper like this would be to narrow the scope or domain of a problem to something that would be useful component in solving bigger problems. This paper does the opposite — expanding the domain to encompass the whole world of physics.*

C++ `std::string_view` for better performance: An example use case

Article

Reddit

Arthur O'Dwyer: std::string_view is a borrow type

cppreference: std::basic_string_view (C++17)