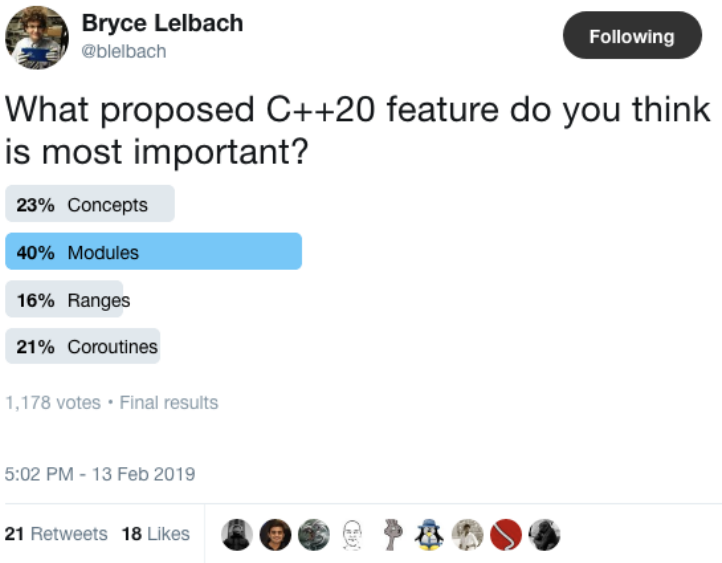
C++ Club Meeting Notes

Gleb Dolgich

2019-02-28

Bryce Lelbach's Kona Twitter Poll



https://www.reddit.com/r/cpp/comments/aq8rxf/bryce_lelbach_on_twitter_what_proposed_c20/

Twitter


EWG Chair
@EWGchair
Nice standard you have there, it would be a real shame if anything happened to it...
13 Likes
1 Retweet
18 Feb 2019 at 19:35
via Twitter for iPhone

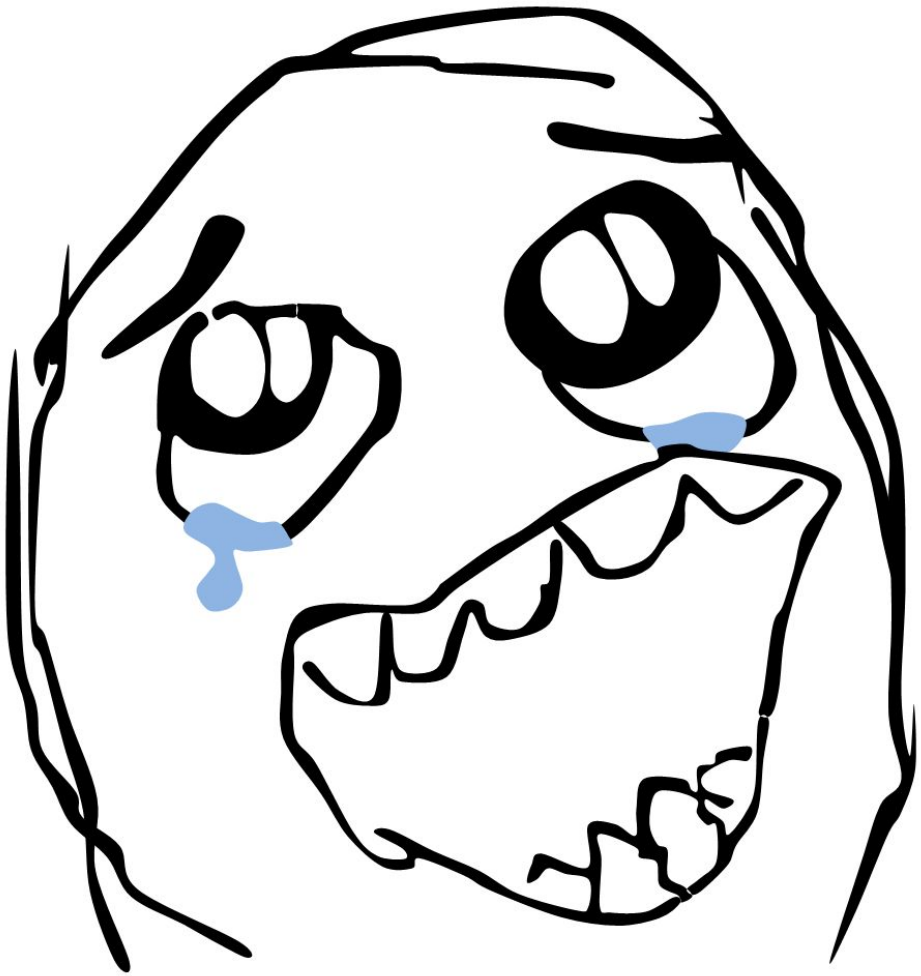
Kona Trip Reports

- Modules! Coroutines! Contracts! Ranges! Constexpr! Spaceships! Calendars! Time zones!
- Bryce Lelbach https://www.reddit.com/r/cpp/comments/au0c4x/201902_kona_iso_c_committee_trip_report_c20/
  - The reports of modules being dead on arrival have been greatly exaggerated. https://www.reddit.com/r/cpp/comments/au0c4x/201902_kona_iso_c_committee_trip_report_c20/eh4stfg/
  - More Reddit https://www.reddit.com/r/programming/comments/au1ie3/201902_kona_iso_c_committee_trip_report_c20/
  - Hacker News https://news.ycombinator.com/item?id=19235702
- Herb Sutter https://herbsutter.com/2019/02/23/trip-report-winter-iso-c-standards-meeting-kona/
  - Reddit https://www.reddit.com/r/cpp/comments/au1skl/herbs_kona_trip_report_winter_iso_c_standards/

    At our next meeting in July, we expect to formally adopt a few additional features that were design-approved at this meeting but didn't complete full wording specification review this week <...> (formatting, `flat_map` etc.)

Bryce Lelbach:

> *TL;DR: C++20 may well be as big a release as C++11.*



API design: iterator-based vs. container-based

Pros:

- Iterator-based API is more flexible
  - works with different containers
  - works with types that expose differently-named **begin** and **end** member functions
  - works on ranges of data instead of the entire container
- Protobuf APIs are iterator-based
- Flatbuffers are iterator-based
- Standard and Boost algorithms are iterator-based

Cons:

- Not as readable as container-based API

Eigen + MTS + Google Ceres Solver = SEGFAULT

- Eigen http://eigen.tuxfamily.org/index.php?title=Main_Page
- Ceres Solver http://ceres-solver.org/
- Memory managers:
  - MTS http://www.desy.de/user/projects/C++/products/mts.html
    - for every 10000 allocations 13 to 17 were unaligned
  - TCMalloc (Google) http://goog-perftools.sourceforge.net/doc/tcmalloc.html
  - Jemalloc (FreeBSD, Facebook) http://jemalloc.net/

```
1 bool aligned = ((unsigned long)p % 16) == 0;
```

Cpp On Sea 2019 Trip Report by Arne Mertz

https://arne-mertz.de/2019/02/cpp-on-sea-2019-trip-report/

> *C++ On Sea is definitely the best conference I have ever been to.*
>
> *The opener was titled “Hello, World”, there was a “main()” plenary hall and session rooms titled “const west”, “east const”, and “unsigned”. The latter was the smallest of the session rooms and had an overflow problem a few times, but luckily that did not lead to undefined behavior, because C++ conference attendees seem to be very nice people in general.*

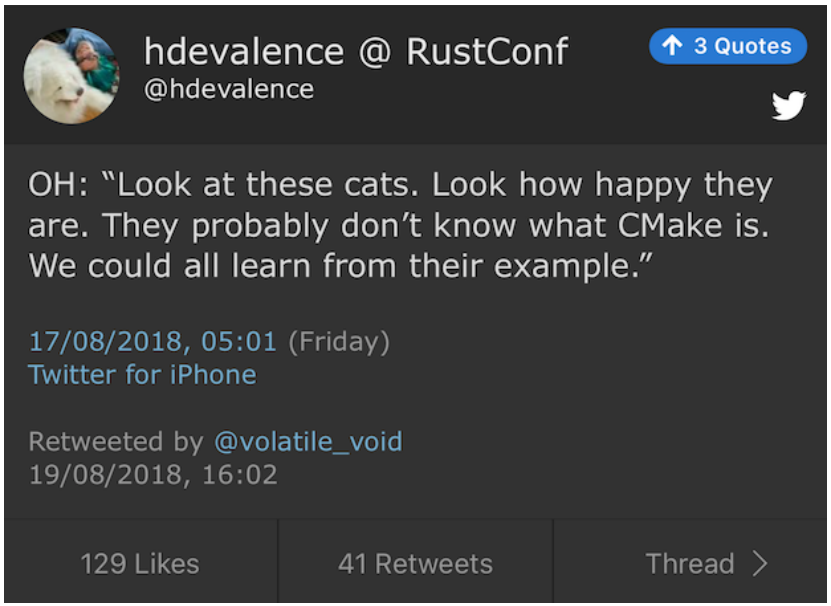
C++ Binary Compatibility and Pain-Free Upgrades to Visual Studio 2019

https://blogs.msdn.microsoft.com/vcblog/2019/01/31/cpp-binary-compatibility-and-pain-free-upgrades-to-visual-studio-2019/

Visual Studio 2019 Release Candidate (RC) now available

https://devblogs.microsoft.com/visualstudio/visual-studio-2019-release-candidate-rc-now-available/

Twitter


hdevalence @ RustConf
@hdevalence
3 Quotes
OH: “Look at these cats. Look how happy they are. They probably don’t know what CMake is. We could all learn from their example.”
17/08/2018, 05:01 (Friday)
Twitter for iPhone
Retweeted by @volatile_void
19/08/2018, 16:02
129 Likes
41 Retweets
Thread

Twitter


amye
@amye
2 Replies, 91 Quotes
OH: "You can't fix that bug. That's a load-bearing bug."
19/02/2019, 02:36 (Tuesday)
Twitter Web Client
Retweeted by @bilm
20/02/2019, 23:04
5228 Likes
1309 Retweets
Thread