Welcome to C++ Edinburgh

Joseph Mansfield josephmansfield.uk @sftrabbit

Thanks to our sponsors





Want to do a talk?



http://goo.gl/forms/bhS0M2mtGN

Keep up-to-date

with C++ Edinburgh happenings.

http://cppedinburgh.uk/



@cppedinburgh



C++ Edinburgh



Mailing List

C++ Update July 2016

Joseph Mansfield josephmansfield.uk @sftrabbit

Thanks to our sponsors





Status of C++17

Even more things have made it in!

Language

- Class template argument deduction
- template <auto>
- auto [x, y, z] = f();
- if (init; condition)
- constexpr if
- Inline variables
- Forward progress guarantees

Library

- variant<>
- Memory management algorithms
 (destroy,
 uninitialized_value_construct,
 ...)
- Splicing for maps and sets
- std[0-9] + **reserved**

Status of Technical Specifications

See here for details: http://en.cppreference.com/w/cpp/experimental

Parallelism TS Merged into C++17

Filesystem TS Merged into C++17

Special Math TS Merged into C++17

Library Fund. TS Part merged into C++17

Concepts TS Published

Concurrency TS Published

Transac. Memory TS Published

Ranges TS Working draft

Networking TS Working draft

Modules TS Working draft

Coroutines TS Working draft

Status of Technical Specifications

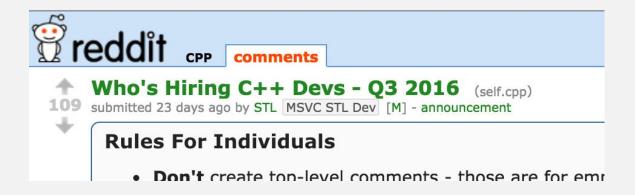
See here for details: http://en.cppreference.com/w/cpp/experimental

Numerics TS
Concurrency TS 2
Parallelism TS 2
Transac. Memory TS 2
Graphics TS

Early development Early development Early development Early development Early development

Who's Hiring?

Regular job opening posts on Reddit



https://reddit.com/r/cpp/

GCC 6.1 is out

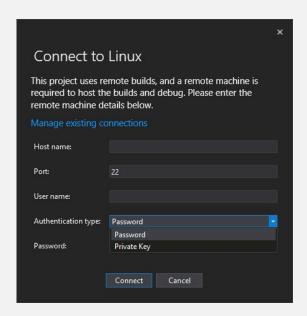
With plenty of C++17 support

Language Feature	Proposal	Available in GCC?
Removing trigraphs	N4086	5.1
u8 character literals	N4267	6
Folding expressions	N4295	6
Attributes for namespaces and enumerators	N4266	4.9 (namespaces) 6 (enumerators)
Nested namespace definitions	N4230	6
Allow constant evaluation for all non-type template arguments	N4268	6
Extending static_assert	N3928	6
[[fallthrough]] attribute	P0188R1	No (bug 7652)
[[nodiscard]] attribute	P0189R1	4.8 ([[gnu::warn_unused_result]]) 7 (P0189R1)
[[maybe_unused]] attribute	P0212R1	4.8 ([[gnu::unused]]) 7 (P0212R1)
Extension to aggregate initialization	P0017R1	No
Wording for constexpr lambda	P0170R1	No
Unary Folds and Empty Parameter Packs	P0036R0	6
Generalizing the Range-Based For Loop	P0184R0	6
Lambda capture of *this by Value	P0018R3	No
Construction Rules for enum class variables	P0138R2	No
Hexadecimal floating literals for C++	P0245R1	3.0

Technical Specification	Document	Available in GCC?
Concepts	N4377	6
Transactional Memory	N4514	6 (no atomic_cancel)

Visual C++ for Linux Development

Remote building on Linux



https://blogs.msdn.microsoft.com/vcblog/2016/03/30/visual-c-for-linux-development/

Awesome C++



https://cpp.libhunt.com/

Lots of interesting new tools/libraries

magnum

Standardese

str_to_integer

doctest

μWebSockets

Vulkan C++ API

Video++

And many more...

Announcements?

Questions?