

The background features several decorative logos of a stylized flower with three petals (orange, green, and yellow) and a blue circular center containing the C++ symbol. These logos are scattered across the slide, with some being larger than others.

Welcome!

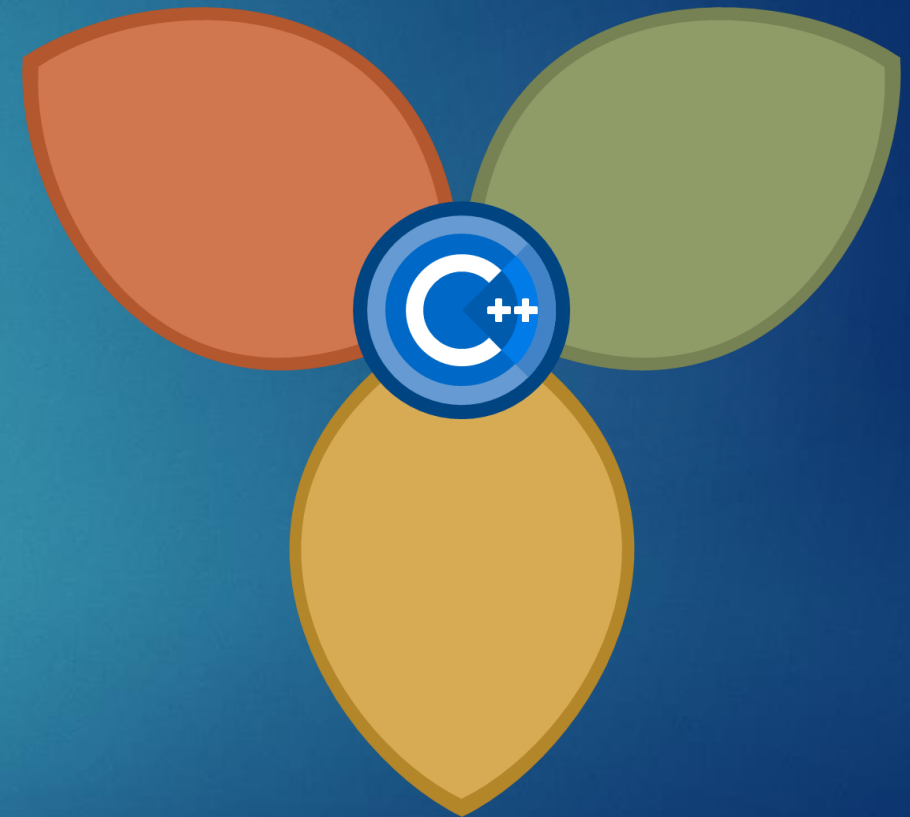
Hard Core C++
2018-Feb-22

IV



Core C++ Goals

- ▶ Diverse community
 - ▶ *Meet Your Neighbor*
 - ▶ *Who, Where, if(!dev)What?*
 - ▶ Census
- ▶ Broad range of topics
 - ▶ Prepare Lightning Talks!
- ▶ Monthly meetings
 - ▶ Carpool



Presence

- ▶ Meetup: [meetup.com/CoreCpp](https://www.meetup.com/CoreCpp)
- ▶ YouTube: **CoreCppIL** [goo.gl/FYnqKu](https://www.youtube.com/watch?v=FYnqKu)
- ▶ Presentations: github.com/CoreCppIL/Meetups
- ▶ C++ Slack: [#ug_il_corecpp](https://www.slack.com/join/shared_invite/zt-1111111111/#ug_il_corecpp)
- ▶ GitHub: github.com/CoreCppIL
- ▶ Israel::C++: [facebook.com/IsraelCpp](https://www.facebook.com/IsraelCpp)
- ▶ Adi Shavit: adishavit@gmail.com :: [@adishavit](https://twitter.com/adishavit)





Core C++ News

- ▶ Co-Organizer and AV! **Michael Gopshtein**
- ▶ Subscribe to our YouTube channel: **CoreCppIL**
- ▶ Photographer! **Gabi Trzewik**
- ▶ Next Meetup: **Mar. 15th**
- ▶ **C++ Usergroups Worldwide Map**
- ▶ We need **Sponsors!**





Get Involved!

- ▶ Give talks!
- ▶ Sponsor us
- ▶ Submit PRs
- ▶ ~~Photographer~~
- ▶ ~~Video Producer~~
- ▶ Host us

Tell your friends!
Tweet, post and
blog about us!





C++ Conferences

► Call for Submissions:

- Italian C++ Conference 2018 by **Mar. 24**
- NDC {Techtown}* 2018, by **May 1st**
- Upcoming
 - Embo++: Embedded C++, Germany
 - NDC {Oslo} :: Oslo



Milan, Italy



Kongsberg, Norway



Oslo, Norway



Bochum, Germany

* Pays for travel and accommodations for unsponsored speakers!



C++ ISO News

► Modules TS published

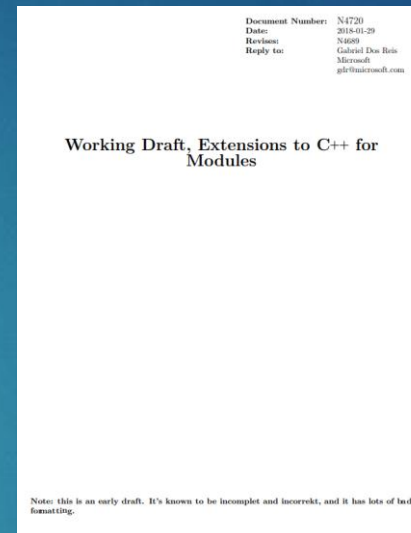
- Paper: isocpp.org/files/papers/n4720.pdf

► Pre-Jacksonville Mailings

- 168 Proposals:
open-std.org/jtc1/sc22/wg21/docs/papers/2018/2018-02-pre-Jacksonville.htm

► ISO Draft Online

- Link: eel.is/c++draft/



2018-02-pre-Jacksonville			
N4714	2018-11 San Diego Meeting Information	Marshall Clow	WG21
N4716	PL22.16/WG21 draft agenda: 12-17 March 2018, Jacksonville, FL, US	John Spicer	WG21
N4717	WG21 telecon meeting: Pre-Jacksonville	Herb Sutter	WG21
N4718	WG21 telecon meeting: Modules TS publication	Herb Sutter	WG21
N4719	Programming Language — Extensions to C++ for Modules	Gabriel Dos Reis	WG21
N4720	Working Draft, Extensions to C++ for Modules	Gabriel Dos Reis	WG21
N4721	Editor's Report for the Module TS	Gabriel Dos Reis	WG21
N4722	Responses to SC22 N5250, ISO/IEC PDIS 21544, C++ Extensions for Modules	Barry Hedquist	WG21
N4723	Working Draft, C++ Extensions for Coroutines	Gor Nishanov	WG21
N4724	Editor's report for the Coroutines TS	Gor Nishanov	WG21
N4725	Working Draft, Technical Specification for C++ Extensions for Parallelism Version 2	Jared Hoberock	WG21
N4726	Parallelism TS Editor's Report	Jared Hoberock	WG21
N4727	Working Draft, Standard for Programming Language C++	Richard Smith	WG21
N4728	Editor's Report — Programming Language C++	Richard Smith, Devin Perchik, Thomas Köppe	WG21
P00099R1	Polymorphic Multidimensional Array Reference	H. Carter Edwards, Daniel Sunderland, David Hollman, Christian Trent, Mauro Bianco, Ben Sander, Athanasios Iliopoulos, John Michopoulos	Library
P00109R0	Atomic View	H. Carter Edwards, Hans Boehm, Olivier Grouot, James Reus	Library
P00118R1	C++ generic overload function	Vicente J. Botet Escerba	Evolution
P00158R0	Working Draft, C++ Extensions for Coroutines	Gor Nishanov	WG21
P01238R0	ipsm: bounds-safe views for sequences of objects	Neil MacIntosh	Library
P01248R0	Static reflection	Matias Chochlik, Arnd Neumann, David Sankel	Core, Library
P02018R1	A polymorphic value type for C++	Jonathan Cole, Sean Parent	Library
P02118R1	Data-Parallel Vector Types & Operations	Mathias Kretz	Library
P02678R1	A Proposal to Add 3D Graphics Rendering and Display to C++	Michael B. McLaughlin, Herb Sutter, Jason Zink, Guy Davidson	Library Evolution

20	Library introduction	[library]
20.5	Library-wide requirements	[requirements]
20.5.4	Constraints on programs	[constraints]
20.5.4.3	Reserved names	[reserved.names]
20.5.4.3.1	Zombie names	[zombie.names]

¹ In namespace `std`, the following names are reserved for previous standardization: ←

- (1.1) `auto_ptr`,
- (1.2) `binary_function`,
- (1.3) `bind1st`,
- (1.4) `bind2nd`,
- (1.5) `binder1st`,
- (1.6) `bindc2nd`

Fresh C++ Links

▶ One Like, One C++ Tip/Fact!

▶ Simon Brand Tweeter thread: goo.gl/ijVsbk

▶ *The 15 C++11 Features You Must Really Use In Your C++ Projects*

▶ Article: cppdepend.com/blog/?p=319

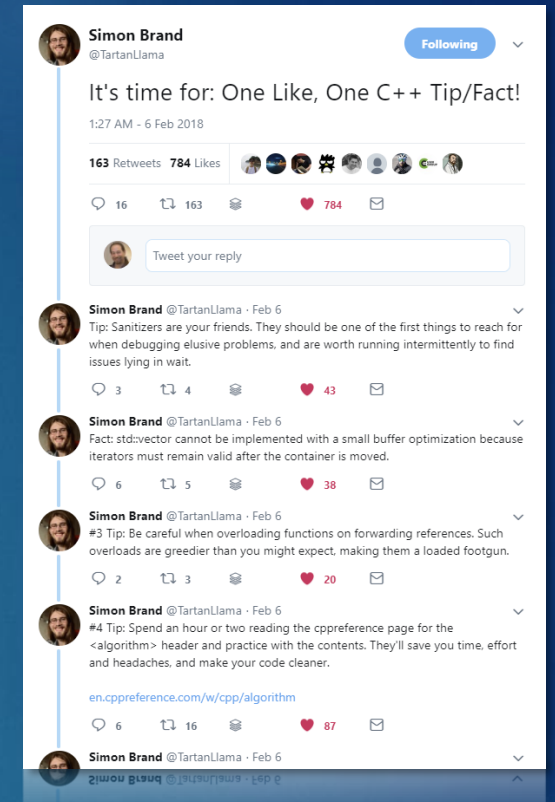
▶ Boost.Outcome :: Boost.HOF

▶ It's Time To Do CMake Right

▶ Link: git.io/vAzN2

▶ Online C++ Compilers

▶ Link: arnemertz.github.io/online-compilers/



List of Online C++ Compilers

Online compilers can be useful tools to quickly compile a snippet of code without having to install a proper compiler on our computer. They can be especially useful to play with the newest language features, to share code snippets online or to compare different compilers.

The following list provides information about available online compilers and their most important features. Support for other languages than C++ is available on many of the listed websites but not covered here. Depending on the versions of the compilers used, they support different versions of the C++ standard. See [this page](#) for more detailed feature lists. Since C++17 is not fully standardized yet, it is marked with an asterisk, where (most of) the expected C++17 features are available.

Besides mere compilation, most online compilers also execute the compiled program. The possibilities to parametrize the compilation via compiler flags, to pass command line/runtime parameters to the executed program and to provide input for standard input vary between the different compilers.

- List of Online C++ Compilers
 - TL;DR
 - The Compilers
 - Codiva.io
 - paiza.io
 - Wandbox
 - Compiler Explorer (Godbolt)
 - Collu
 - Quick-Bench
 - Rextester
 - Ideone
 - ...
 - ...

Fresh C++ Videos

▶ CoreCppL :: Subscribe Now!

▶ Channel: goo.gl/FYnqKu

▶ Introduction to Ranges

▶ Video: www.fluentcpp.com/?p=3001

▶ Sweden CPP video channel

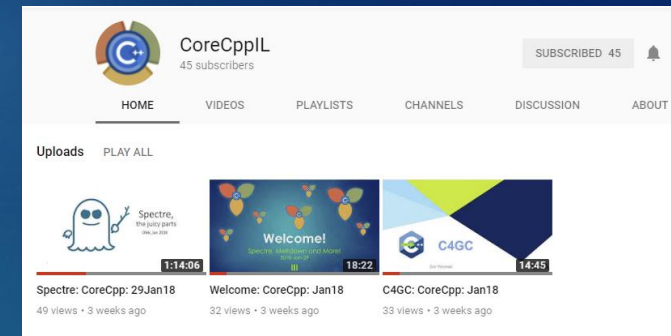
▶ Channel: goo.gl/BgdfLw

▶ Meta Crush Saga: A C++17 Compile-Time Game

▶ Video: <http://youtu.be/XV1lXtB3sqg>

▶ C++ Weekly: Learning "Modern" C++

▶ Video: youtu.be/zMrP8heIz3g



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Agenda

19:00 :: Updates and News

19:15 :: C4GC, Shalom Kramer

19:25 :: *Valgrind*, The Swiss Knife of Memory Debugging, Rafi Wiener

20:00 :: *break*

20:10 :: Diving into GPGPU with CUDA, Eri Rubin