C++ compiler support

This page is maintained as best-effort and may lag behind most recent compiler releases. If you see something is out-of-date, please help us by updating it!

The following table presents compiler support for new C++ features. These include C++11, C++14, C++17, and later accepted revisions to the standard, as well as various technical specifications.

C++ 2017 features

C++ 2017 feature	Paper(s)	Version	GCC	Clang	MSVC	EDG eccp	Intel C++	IBM XLC++	Sun/Oracle C++	Embarcadero C++ Builder	Cray	Portland Group (PGI)	HP aCC	Digital Mars C++ [Collapse]
New auto rules for direct-list-initialization	N3922 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2014/n3922.html)	c++17-lang	5.0	3.8	19.0*	4.10.1	17.0							
static_assert with no message	N3928 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2014/n3928.pdf)	c++17-lang	6	2.5	19.1*	4.12								
typename in a template template parameter	N4051 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2014/n4051.html)	c++17-lang	5.0	3.5	19.0*	4.10.1	17.0							
Removing trigraphs	N4086 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2014/n4086.html)	c++17-lang	5.1	3.5	10.0*									
Nested namespace definition	N4230 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2014/n4230.html)	c++17-lang	6	3.6	19.0*	4.12	17.0							
Attributes for namespaces and enumerators	N4266 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2014/n4266.html)	c++17-lang	4.9 (namespaces) / 6 (enumerators)	3.6	19.0*	4.11								
u8 character literals	N4267 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2014/n4267.html)	c++17-lang	6	3.6	19.0*	4.11	17.0							
Allow constant evaluation for all non-type template arguments	N4268 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2014/n4268.html)	c++17-lang	6	3.6										
Fold Expressions	N4295 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2014/n4295.html)	c++17-lang	6	3.6										
Remove Deprecated Use of the register Keyword	P0001R1 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2015/p0001r1.html)	c++17-lang	7	3.8										
Remove Deprecated operator++(bool)	P0002R1 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2015/p0002r1.html)	c++17-lang	7	3.8										
Removing Deprecated Exception Specifications from C++17	P0003R5 (http://wg21.link/p0003r5)	c++17-lang	7	4										
Make exception specifications part of the type system	P0012R1 (http://wg21.link/p0012r1)	c++17-lang	7	4										
Aggregate initialization of classes with base classes	P0017R1 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2015/p0017r1.html)	c++17-lang	7	3.9										
Lambda capture of *this	P0018R3 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2016/p0018r3.html)	c++17-lang	7	3.9										
Using attribute namespaces without repetition	P0028R4 (http://wg21.link/p0028r4)	c++17-lang	7	3.9										
Dynamic memory allocation for over-aligned data	P0035R4 (http://wg21.link/p0035r4)	c++17-lang	7	4										
Unary fold expressions and empty parameter packs	P0036R0 (http://wg21.link/p0036r0)	c++17-lang	6	3.9										
__has_include in preprocessor conditionals	P0061R1 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2015/p0061r1.html)	c++17-lang	5.0	Yes										
Template argument deduction for class templates	P0091R3 (http://wg21.link/p0091r3)	c++17-lang	7	5										
Non-type template parameters with auto type	P0127R2 (http://wg21.link/p0127r2)	c++17-lang	7	4										
Guaranteed copy elision	P0135R1 (http://wg21.link/p0135r1)	c++17-lang	7	4										
New specification for inheriting constructors (DR1941 et al)	P0136R1 (http://wg21.link/p0136r1)	c++17-lang	7	3.9										
Direct-list-initialization of enumerations	P0138R2 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2016/p0138r2.pdf)	c++17-lang	7	3.9										
Stricter expression evaluation order	P0145R3 (http://wg21.link/p0145r3)	c++17-lang	7	4										
constexpr lambda expressions	P0170R1 (http://wg21.link/p0170r1)	c++17-lang	7	5										
Differing begin and end types in range-based for	P0184R0 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2016/p0184r0.html)	c++17-lang	6	3.9	19.1*	4.12								
[[fallthrough]] attribute	P0188R1 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2016/p0188r1.pdf)	c++17-lang	7	3.9	19.1*									
	P0189R1 (http://www.open	c++17												

[[nodiscard]] attribute	P0189R1 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2016/p0189r1.pdf)	c++17-lang	7	3.9										
Pack expansions in using-declarations	P0195R2 (http://wg21.link/p0195r2)	c++17-lang	7	4										
[[maybe_unused]] attribute	P0212R1 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2016/p0212r1.pdf)	c++17-lang	7	3.9										
Structured Bindings	P0217R3 (http://wg21.link/p0217r3)	c++17-lang	7	4										
Hexadecimal floating-point literals	P0245R1 (http://wg21.link/p0245r1)	c++17-lang	3.0	Yes										
Ignore unknown attributes	P0283R2 (http://wg21.link/p0283r2)	c++17-lang	Yes	3.9										
constexpr if statements	P0292R2 (http://wg21.link/p0292r2)	c++17-lang	7	3.9										
init-statements for if and switch	P0305R1 (http://wg21.link/p0305r1)	c++17-lang	7	3.9										
Inline variables	P0386R2 (http://wg21.link/p0386r2)	c++17-lang	7	3.9										
DR: Matching of template template-arguments excludes compatible templates	P0522R0 (http://wg21.link/p0522r0)	c++17-lang	7	4										
std::uncaught_exceptions()	N4259 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2014/n4259)	c++17	6	3.7	19.0*									
Splicing Maps and Sets	P0083R3 (http://wg21.link/p0083r3)	c++17	7											
Improving `std::pair` and `std::tuple`	N4387 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2015/n4387.html)	c++17	Yes	4	19.0*	N/A	N/A							
`std::shared_mutex` (untimed)	N4508 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2015/n4508.html)	c++17	6	3.7	19.0*	N/A	N/A							
C++ feature	**Paper(s)**	**Version**	**GCC**	**Clang**	**MSVC**	**EDG eccp**	**Intel C++**	**IBM XLC++**	**Sun/Oracle C++**	**Embarcadero C++ Builder**	**Cray**	**Portland Group (PGI)**	**HP aCC**	**Digital Mars C++**

C++ 2014 features

C++ 2014 feature	Paper(s)	Version	GCC	Clang	MSVC	EDG eccp	Intel C++	IBM XLC++	Sun/Oracle C++	Embarcadero C++ Builder	Cray	Portland Group (PGI)	HP aCC	Digital Mars C++ [Collapse]
Tweaked wording for contextual conversions	N3323 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2012/n3323.pdf)	c++14-lang	4.9	3.4	18.0*	4.9	16.0	13.1.2*						
Binary literals	N3472 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2012/n3472.pdf)	c++14-lang	4.3/4.9	2.9	19.0*	4.10	11.0	13.1.2*	5.14			2015		
decltype(auto), Return type deduction for normal functions	N3638 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3638.html)	c++14-lang	4.8/4.9	3.3/3.4	19.0*	4.9	15.0	13.1.2*						
Initialized/Generalized lambda captures (init-capture)	N3648 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3648.html)	c++14-lang	4.5/4.9	3.4	19.0*	4.10	15.0					?		
Generic (polymorphic) lambda expressions	N3649 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3649.html)	c++14-lang	4.9	3.4	19.0*	4.10	16.0	13.1.2*				?		
Variable templates	N3651 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3651.pdf)	c++14-lang	5.0	3.4	19.0*	4.11	17.0	13.1.2*						
Extended constexpr	N3652 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3652.html)	c++14-lang	5	3.4	19.1*	4.11	17.0	13.1.2*						
Member initializers and aggregates (NSDMI)	N3653 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3653.html)	c++14-lang	5	3.3	19.1*	4.9	16.0		5.14					
Clarifying memory allocation (avoiding/fusing allocations)	N3664 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3664.html)	c++14-lang	N/A	3.4	N/A	N/A								
Deprecated attribute	N3760 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3760.html)	c++14-lang	4.9	3.4	19.0*	4.9	15.0* 16.0	13.1.2*	5.14					
Sized deallocation	N3778 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3778.html)	c++14-lang	5	3.4	19.0*	4.10.1	17.0		5.14					
Single quote as digit separator	N3781 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3781.pdf)	c++14-lang	4.9	3.4	19.0*	4.10	16.0	13.1.2*	5.14			2015		
`std::result_of` and SFINAE	N3462 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2012/n3462.html)	c++14	5.0	Yes	19.0*	N/A	N/A			Yes				
`constexpr` for `<complex>`	N3302 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2011/n3302.html)	c++14	5.0	3.4	19.0*	N/A	N/A							
`constexpr` for `<chrono>`	N3469 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2012/n3469.html)	c++14	5.0	3.4	19.0*	N/A	N/A							
`constexpr` for `<array>`	N3470 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2012/n3470.html)	c++14	5.0	3.4	19.0*	N/A	N/A							
`constexpr` for `<initializer_list>`, `<utility>` and `<tuple>`	N3471 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2012/n3471.html)	c++14	5.0	3.4	19.0*	N/A	N/A							
Improved `std::integral_constant`	N3545 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3545.pdf)	c++14	5.0	3.4	19.0*	N/A	N/A							
User-defined literals for	N3642 (http://www.open-													

User-defined literals for <chrono> and <string>	N3642 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3642.pdf)	c++14	5.0	3.4	19.0*	N/A	N/A							
Null forward iterators	N3644 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3644.pdf)	c++14	5.0*	3.4	19.0*	N/A	N/A							
`std::quoted`	N3654 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3654.html)	c++14	5.0	3.4	19.0*	N/A	N/A							
Heterogeneous associative lookup	N3657 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3657.htm)	c++14	5.0	3.4	19.0*	N/A	N/A							
`std::integer_sequence`	N3658 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3658.html)	c++14	5.0	3.4	19.0*	N/A	N/A							
`std::shared_timed_mutex`	N3659 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3659.html)	c++14	5.0	3.4	19.0*	N/A	N/A							
`std::exchange`	N3668 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3668.html)	c++14	5.0	3.4	19.0*	N/A	N/A							
fixing `constexpr` member functions without `const`	N3669 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3669.pdf)	c++14	5.0	3.4	19.0*	N/A	N/A							
`std::get<T>()`	N3670 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3670.html)	c++14	5.0	3.4	19.0*	N/A	N/A							
Dual-Range `std::equal`, `std::is_permutation`, `std::mismatch`	N3671 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2013/n3671.html)	c++14	5.0	3.4	19.0*	N/A	N/A							
C++ feature	**Paper(s)**	**Version**	**GCC**	**Clang**	**MSVC**	**EDG eccp**	**Intel C++**	**IBM XLC++**	**Sun/Oracle C++**	**Embarcadero C++ Builder**	**Cray**	**Portland Group (PGI)**	**HP aCC**	**Digital Mars C++**

C++ 2011 features

C++ 2011 feature	Paper(s)	Version	GCC	Clang	MSVC	EDG eccp	Intel C++	IBM XLC++	Sun/Oracle C++	Embarcadero C++ Builder	Cray	Portland Group (PGI)	HP aCC	Digital Mars C++ [Collapse]
`alignas`	N2341 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2007/n2341.pdf)	c++11	4.8	3.0	19.0*	4.8	15.0	13.1.2*	5.13	Yes	8.4	2015		
`alignof`	N2341 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2007/n2341.pdf)	c++11	4.5	2.9	19.0*	4.8	15.0	13.1.2*	5.13	Yes	8.4	2015		
Atomic operations	N2427 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2007/n2427.html)	c++11	4.4	3.1	17.0*	Yes	13.0	13.1.2*	5.14	Yes	8.4	2015		
`auto`	N1984(v1.0) (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2006/n1984.pdf)	c++11	4.4(v1.0)	Yes	16.0 (v0.9)*	4.1(v0.9)	11.0(v0.9) 12.0(v1.0)	11.1(v1.0)	5.13	Yes	8.4	2015	A.06.25	
C99 preprocessor	N1653 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2004/n1653.htm)		4.3	Yes	19.0*	4.1	11.1	10.1	5.9	Yes	8.4	2015	A.06.25	Yes
`constexpr`	N2235 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2007/n2235.pdf)	c++11	4.6	3.1	19.0*	4.6	13.0* 14.0	12.1* 13.1	5.13	Yes	8.4	2015	A.06.28	
`decltype`	v1.0: N2343 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2007/n2343.pdf) v1.1: N3276 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2011/n3276.pdf)	c++11	4.3(v1.0) 4.8.1(v1.1)	2.9	16.0 (v1.1)*	4.1(v1.0)	11.0(v1.0) 12.0(v1.1)	11.1(v1.0)	5.13	Yes	8.4	2015	A.06.25	8.52(v1.0)
Defaulted and deleted functions	N2346 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2007/n2346.htm)	c++11	4.4	3.0	18.0*	4.1	12.0	13.1	5.13	Yes	8.4	2015	A.06.25	
Delegating constructors	N1986 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2006/n1986.pdf)	c++11	4.7	3.0	18.0*	4.7	14.0	11.1	5.13	Yes	8.4	2015	A.06.28	
Explicit conversion operators	N2437 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2007/n2437.pdf)	c++11	4.5	3.0	18.0*	4.4	13.0	12.1	5.13	Yes	8.4	2015	A.06.27	
Extended `friend` declarations	N1791 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2005/n1791.pdf)	c++11	4.7	2.9	16.0*	4.1	11.1* 12.0	11.1	5.13	Yes	8.4	2015	A.06.25	
`extern template`	N1987 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2006/n1987.htm)	c++11	3.3	Yes	12.0*	3.9	9.0	11.1	5.13	Yes	8.4	2015	A.06.25	
Forward `enum` declarations	N2764 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2008/n2764.pdf)	c++11	4.6	3.1	17.0*	4.5	11.1* 14.0	12.1	5.13	Yes	8.4	2015		
Inheriting constructors	N2540 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2008/n2540.htm)	c++11	4.8	3.3	19.0*	4.8	15.0	13.1.1*	5.13	Yes	8.4	2015		
Initializer lists	N2672 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2008/n2672.htm)	c++11	4.4	3.1	18.0*	4.5	13.0* 14.0	13.1.2*	5.13	Yes	8.4	2015	A.06.28	
Lambda expressions	v0.9: N2550 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2008/n2550.pdf) v1.0: N2658 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2008/n2658.pdf) v1.1: N2927 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2009/n2927.pdf)	c++11	4.5(v1.1)	3.1	16.0*	4.1(v1.1)	12.0(v1.1)	13.1.2*	5.13	Yes	8.4	2015	A.06.25	
Local and unnamed types as template parameters	N2657 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2008/n2657.htm)		4.5	2.9	16.0*	4.2	12.0	13.1.2*	5.13	Yes	8.4	2015	A.06.27	
`long long`	N1811 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2005/n1811.pdf)	c++11	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	8.4	2015	Yes	Yes
Inline namespaces	N2535 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2008/n2535.htm)	c++11	4.4	2.9	19.0*	4.5	14.0	11.1	5.13	Yes	8.4	2015	A.06.28	
New character types	N2249 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2007/n2249.html)	c++11	4.4	2.9	19.0*	4.4	12.1* 14.0	13.1.1*	5.13	Yes	8.4	2015	A.06.27	8.52

Trailing function return types	N2541 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2008/n2541.htm)	c++11	4.4	2.9	16.0*	4.1	12.0	12.1	5.13	Yes	8.4	2015	A.06.27	
`nullptr`	N2431 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2007/n2431.pdf)	c++11	4.6	2.9	16.0*	4.2	12.1	13.1	5.13	Yes	8.4	2015	A.06.27	8.52
Unicode string literals	N2442 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2007/n2442.htm)	c++11	4.4	3.0	19.0*	4.7	11.0*	10.1* 13.1.1*	5.7	Yes	8.4	2015	A.06.28	8.52
Raw string literals	N2442 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2007/n2442.htm)	c++11	4.5	Yes	18.0*	4.7	14.0	13.1.1*	5.13	Yes	8.4	2015	A.06.28	8.52
User-defined literals	N2765 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2008/n2765.pdf)	c++11	4.7	3.1	19.0*	4.8	15.0	13.1.2*	5.14	Yes	8.4	2015		
Right angle brackets	N1757 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2005/n1757.html)	c++11	4.3	Yes	14.0*	4.1	11.0	12.1	5.13	Yes	8.4	2015		
R-value references	v1.0: N2118 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2006/n2118.html) v2.0: N2844 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2009/n2844.html) v2.1: N2844+ (http://www.open-std.org/jtc1/sc22/wg21/docs/cwg_defects.html#1138) v3.0: N3053 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2010/n3053.html)	c++11	4.3(v1.0) 4.5(v2.1) 4.6(v3.0)	Yes	16.0*	4.5(v3.0)	11.1(v1.0) 12.0(v2.0) 14.0(v3.0)	12.1(v2.1)	5.13	Yes	8.4	2015	A.06.25	
`static_assert`	N1720 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2004/n1720.html)	c++11	4.3	2.9	16.0*	4.1	11.0	11.1	5.13	Yes	8.4	2015	A.06.25	8.52
Strongly-typed `enum`	N2347 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2007/n2347.pdf)	c++11	4.4	2.9	17.0*	4.0	13.0	12.1	5.13	Yes	8.4	2015	A.06.25	
Template aliases	N2258 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2007/n2258.pdf)	c++11	4.7	3.0	18.0*	4.2	12.1	13.1.1*	5.13	Yes	8.4	2015	A.06.27	
Thread-local storage	N2659 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2008/n2659.htm)	c++11	4.4* 4.8	3.3* 3.3	19.0*	4.8	11.1* 15.0*	10.1* 13.1.2*	5.9*	Yes	8.4	2015		8.52*
Unrestricted unions	N2544 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2008/n2544.pdf)	c++11	4.6	3.0	19.0*	4.6	14.0*	13.1.2*	5.13	Yes	8.4	2015	A.06.28	
Type traits	N1836 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2005/n1836.pdf)	c++11	4.3	3.0	14.0*	4.0	10.0	13.1.3	5.13	Yes	8.4	2015	6.16	
Variadic templates	v0.9: N2242 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2007/n2242.pdf) v1.0: N2555 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2008/n2555.pdf)	c++11	4.3(v0.9) 4.4(v1.0)	2.9(v1.0)	18.0*	4.1(v0.9)	12.1(v1.0)	11.1(v0.9)	5.13	Yes	8.4	2015	A.06.27	
Range-for loop	N2930 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2009/n2930.html)	c++11	4.6	3.0	17.0*	4.5	13.0	13.1.2*	5.13	Yes	8.4	2015	A.06.28	
`override` and `final`	v0.8: N2928 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2009/n2928.html) v0.9: N3206 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2010/n3206.htm) v1.0: N3272 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2011/n3272.htm)	c++11	4.7	2.9	17.0*	4.8(v1.0)	12.0(v0.8) 14.0(v1.0)	13.1.1*	5.13	Yes	8.4	2015		
Attributes	N2761 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2008/n2761.pdf)	c++11	4.8	3.3	19.0*	4.2	12.1	13.1.1*	5.13	Yes	8.4	2015	A.06.27	
ref-qualifiers	N2439 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2007/n2439.htm)	c++11	4.8.1	2.9	19.0*	4.7	14.0	13.1.2*	5.13	Yes	8.4	2015	A.06.28	
Non-static data member initializers	N2756 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2008/n2756.htm)	c++11	4.7	3.0	18.0*	4.6	14.0	13.1.2*	5.13	Yes	8.4	2015	A.06.28	
Dynamic initialization and destruction with concurrency (magic statics)	N2660 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2008/n2660.htm)	c++11	4.3	2.9	19.0*	Yes	11.1*	13.1.2*	5.13	Yes	8.4	2015	A.06.25	
`noexcept`	N3050 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2010/n3050.html)	c++11	4.6	3.0	19.0*	4.5	14.0	13.1.1*	5.13	Yes	8.4	2015	A.06.28	
dynamic pointer safety (GC interface)	n2670 (http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2008/n2670.htm)	c++11												
Money, Time, and hexfloat I/O manipulators	[]	c++11	5.1	3.8	19.0*									
C++ feature	**Paper(s)**	**Version**	**GCC**	**Clang**	**MSVC**	**EDG eccp**	**Intel C++**	**IBM XLC++**	**Sun/Oracle C++**	**Embarcadero C++ Builder**	**Cray**	**Portland Group (PGI)**	**HP aCC**	**Digital Mars C++**

C++ Post-2017

C++ Post-2017 feature	Paper(s)	Version	GCC	Clang	MSVC	EDG eccp	Intel C++	IBM XLC++	Sun/Oracle C++	Embarcadero C++ Builder	Cray	Portland Group (PGI)	HP aCC	Digital Mars C++ [Collapse]

C++ feature	Paper(s)	Version	CC	ang	SVC	eccp	I C++	KLC++	acle C++	o C++ Builder	ray	Group (PGI)	aCC	Mars C++

*- hover over the version number to see notes

References

Individual vendor compatibility checklists (these are more up-to-date than the table above)

- GCC (Updated 2016-06)
  - GCC 6 release notes (https://gcc.gnu.org/gcc-6/changes.html)
  - C++11 core language support status (https://gcc.gnu.org/gcc-4.8/cxx0x_status.html) (complete as of 4.8.1)
  - C++14 core language support status (https://gcc.gnu.org/projects/cxx1y.html) (complete as of 5.0)
  - C++17 core language support status (https://gcc.gnu.org/projects/cxx1z.html)
  - C++ core language support status (https://gcc.gnu.org/projects/cxx-status.html) (supersedes the above version-specific pages)
  - C++11 library support status (https://gcc.gnu.org/onlinedocs/libstdc++/manual/status.html#status.iso.200x) (complete as of 5.0)
  - C++14 library support status (https://gcc.gnu.org/onlinedocs/libstdc++/manual/status.html#status.iso.2014) (complete as of 5.0)
  - Technical Specifications support status (https://gcc.gnu.org/onlinedocs/libstdc++/manual/status.html#table.ts_status)
  - C++17 library support status (https://gcc.gnu.org/onlinedocs/libstdc++/manual/status.html#status.iso.201z)
- Clang++ (Updated 2016-06)
  - C++11 core language support status (http://clang.llvm.org/cxx_status.html#cxx11) (complete as of 3.3)
  - C++11 library support status (complete as of 2012-07-29 (https://github.com/llvm-mirror/libcxx/commit/5fec82dc0db3623546038e4a86baa44f749e554f#diff-c330060c0d4b6fb493c2be0ff80a3f7e))
  - C++14 core language support status (http://clang.llvm.org/cxx_status.html#cxx14) (complete as of 3.4)
  - C++14 library support status (http://libcxx.llvm.org/cxx1y_status.html) (complete as of 3.5)
  - Technical Specifications support status (http://clang.llvm.org/cxx_status.html#ts)
  - C++17 core language support status (http://clang.llvm.org/cxx_status.html#cxx17)
  - Core language defect report status (http://clang.llvm.org/cxx_dr_status.html)
  - C++17 library support status (http://libcxx.llvm.org/cxx1z_status.html)
- Microsoft Visual Studio (updated 2016-06)
  - C++11/C++14/C++17 core language support status
    - C++11/14/17 core language support status in VS2010, VS2012, VS2013, and VS2015 (http://msdn.microsoft.com/en-us/library/hh567368.aspx#featurelist)
    - VS2013 vs. VS2015 CTP0 (http://blogs.msdn.com/b/vcblog/archive/2013/12/02/c-11-14-core-language-features-in-vs-2013-and-the-nov-2013-ctp.aspx)
    - VS2013 vs. VS2015 CTP1 (http://blogs.msdn.com/b/vcblog/archive/2014/06/11/c-11-14-feature-tables-for-visual-studio-14-ctp1.aspx)
    - VS2013 vs. VS2015 CTP3 (http://blogs.msdn.com/b/vcblog/archive/2014/08/21/c-11-14-features-in-visual-studio-14-ctp3.aspx) (includes the roadmap table)
    - VS2015 ("VS14") preview (http://blogs.msdn.com/b/vcblog/archive/2014/11/17/c-11-14-17-features-in-vs-2015-preview.aspx)
    - VS2015 ("VS14") release candidate (http://blogs.msdn.com/b/vcblog/archive/2015/04/29/c-11-14-17-features-in-vs-2015-rc.aspx) (C++11 remains incomplete, but C++17 support appears)
    - VS2017 (https://docs.microsoft.com/en-us/cpp/visual-cpp-language-conformance)
  - C++11 and C++14 library support status (http://msdn.microsoft.com/en-us/library/hh567368.aspx#stl)
  - C++11/14/17 Features In VS 2015 RTM (http://blogs.msdn.com/b/vcblog/archive/2015/06/19/c-11-14-17-features-in-vs-2015-rtm.aspx) including core language and standard library (including technical specifications)
  - C++14/17 features in VS 2015 Update 2 standard library (http://blogs.msdn.com/b/vcblog/archive/2016/01/22/vs-2015-update-2-s-stl-is-c-17-so-far-feature-complete.aspx) library is feature complete up to current C++17 with few minor issues (some defect reports, some constexprs, etc)
  - C++14/17 Features and STL Fixes in VS “15” Preview 5 (https://blogs.msdn.microsoft.com/vcblog/2016/10/11/c1417-features-and-stl-fixes-in-vs-15-preview-5/) including a detailed C++17 status table
- Intel C++ (Updated 2016-06)
  - C++11 core language support status (https://software.intel.com/en-us/articles/c0x-features-supported-by-intel-c-compiler) (complete as of 15.0)
  - C++14 core language support status (https://software.intel.com/en-us/articles/c14-features-supported-by-intel-c-compiler) (functionally complete as of 17.0 - N3664 is an optimization)
  - C++17 core language support status (https://software.intel.com/en-us/articles/c17-features-supported-by-intel-c-compiler) (incomplete)
  - Intel does not ship an implementation of the C++ standard library
- EDG (Updated 2016-01)
  - C++11 core language support status (https://www.edg.com/features.html)
  - C++14 core language support status (https://www.edg.com/cpp14_features.html)
  - C++17 core language support status (https://www.edg.com/cpp17_features.html)
  - EDG does not ship an implementation of the C++ standard library
- Oracle C++ (updated 2016-01)
  - C++11 core language support status (http://docs.oracle.com/cd/E37069_01/html/E37071/gncix.html)
    - Missing C++11 support added in 5.14 (page has a typo, and still says 5.13) (https://docs.oracle.com/cd/E60778_01/html/E60742/gkeza.html#scrolltoc)
  - C++14 features added in 5.14 (https://docs.oracle.com/cd/E60778_01/html/E60742/gncix.html#scrolltoc)
  - Oracle ships three implementations of the C++ standard library:
    - libCstd (RogueWave Standard Library version 2), predates C++98

        - stlport4 (STLport Standard Library version 4.5.3), predates C++03
        - stdcxx4 (Apache Standard Library version 4), predates C++11
- IBM XL C++ (updated 2015-12)
    - C++11 core language support status (http://www-01.ibm.com/support/knowledgecenter/SSGH3R_13.1.0/com.ibm.xlcpp131.aix.doc/language_ref/cpp0x_exts.html?lang=en) (v 13.1 for AIX)
    - IBM ships a version of Dinkumware library (http://www-01.ibm.com/support/knowledgecenter/SSGH3R_13.1.0/com.ibm.xlcpp131.aix.doc/standlib/header_files.html?lang=en) for AIX with full support for C++ TR1, including <regex>, but no C++11
    - C++11 core language support status (http://www-01.ibm.com/support/knowledgecenter/SSXVZZ_13.1.1/com.ibm.xlcpp1311.lelinux.doc/language_ref/standard_features.html?lang=en) (v 13.1.1 for Linux)
    - IBM does not ship an implementation of C++ standard library for Linux (uses GNU libstdc++)
    - C++11/C++14 core language support status (https://www.ibm.com/developerworks/community/blogs/5894415f-be62-4bc0-81c5-3956e82276f3/entry/What_new_C_11_language_features_you_will_get_by_using_the_latest_XL_C_C_V13_1_2_and_a_sneak_peak_at_C_14?lang=en) (v 13.1.2 for Little Endian Linux / zLinux Big Endian)
- HP aCC
    - C++11 core language support status (http://h21007.www2.hp.com/portal/site/dspp/menuitem.863c3e4cbcdc3f3515b49c108973a801?ciid=887a551fac19b410VgnVCM200000a460ea10RCRD)
    - HP ships a version of RogueWave STL 2.0 implementation of the C++98 standard library
- Digital Mars C++
    - C++11 core language support status (http://www.digitalmars.com/ctg/CPP0x-Language-Implementation.html)
- Embarcadero C++
    - C++11 core language support status (http://docwiki.embarcadero.com/RADStudio/Berlin/en/C%2B%2B11_Language_Features_Compliance_Status) (C++ Builder 10.1 Berlin for Windows 32/64, iOS and Android clang-enhanced compilers) [1] (http://docwiki.embarcadero.com/RADStudio/Berlin/en/Clang-enhanced_C%2B%2B_Compilers)
- Cray (updated 2015-12)
    - [2] (http://docs.cray.com/books/S-2179-84/S-2179-84.pdf) For version 8.4, claims all of C++11 is supported except alignas
- Portland Group (PGI) (updated 2016-07)
    - Release notes for 2016 (http://www.pgroup.com/doc/pgirn.pdf) claim C++14 support, except "generalized constexpr and constexpr member functions and implicit const, variable templates, clarifying memory allocation (merged allocation)"
