Clava Testing Results

May 26, 2023

1 C++98

| | Parsing | | $\operatorname{Code_generation}$ | | Idempotency | | Correctness | |
|----------------------|---------|---------|-----------------------------------|---------|-------------|---------|-------------|---------|
| | Time | Success | Time | Success | Tries | Success | Time | Success |
| 00 _and | 0.12 | True | 0.12 | True | 0 | False | 0.291 | True |
| $01_{\rm and_eq}$ | 0.13 | True | 0.13 | True | 0 | False | 0.273 | True |
| $02_{ m bit}$ and | 0.13 | True | 0.13 | True | 0 | False | 0.302 | True |
| $03_{ m bitor}$ | 0.13 | True | 0.13 | True | 0 | False | 0.279 | True |
| $04_{ m bool}$ | 0.01 | True | 0.01 | True | 0 | False | 0.036 | True |
| $05_{ m break}$ | 0.19 | True | 0.2 | True | 0 | False | 0.4 | True |
| 06 _case | 0 | False | 0 | False | 0 | False | 0 | False |
| 07 _catch | 0.2 | True | 0.2 | True | 0 | False | 0.462 | True |
| 08 _char | 0.01 | True | 0.01 | True | 0 | False | 0.036 | True |
| $09_{ m class}$ | 0.01 | True | 0.01 | True | 0 | False | 0.037 | True |
| 10 _compl | 0.14 | True | 0.14 | True | 0 | False | 0.277 | True |
| 11 _const | 0.03 | True | 0.04 | True | 0 | False | 0.05 | True |
| 12_const_cast | 0.21 | True | 0.21 | True | 0 | False | 0.392 | True |
| 13 _continue | 0.01 | True | 0.01 | True | 0 | False | 0.055 | True |
| $14_{ m default}$ | 0 | False | 0 | False | 0 | False | 0 | False |
| 15_delete | 0 | False | 0 | False | 0 | False | 0 | False |
| 16 _do | 0.21 | True | 0.21 | True | 0 | False | 0.461 | True |
| 17_double | 0.01 | True | 0.01 | True | 0 | False | 0.034 | True |
| $18_{dynamic_cast}$ | 0.01 | True | 0.01 | True | 0 | False | 0.038 | True |
| $19_{ m else}$ | 0.2 | True | 0.2 | True | 0 | False | 0.391 | True |
| 20_{-} enum | 0.01 | True | 0.01 | True | 0 | False | 0.037 | True |
| 21 _explicit | 0.01 | True | 0.01 | True | 0 | False | 0.036 | True |
| 22 _extern | 0 | False | 0 | False | 0 | False | 0 | False |
| 23 _false | 0.01 | True | 0.01 | True | 0 | False | 0.035 | True |
| $24_{ m float}$ | 0.01 | True | 0.01 | True | 0 | False | 0.038 | True |
| $25_{ m for}$ | 0.01 | True | 0.01 | True | 0 | False | 0.037 | True |
| 26 _friend | 0 | False | 0 | False | 0 | False | 0 | False |
| $27_{ m goto}$ | 0.19 | True | 0.19 | True | 0 | False | 0.42 | True |
| $28_{ m if}$ | 0.01 | True | 0.01 | True | 0 | False | 0.035 | True |
| $29_{ m inline}$ | 0.01 | True | 0.01 | True | 0 | False | 0.036 | True |
| $30_{ m int}$ | 0.01 | True | 0.01 | True | 0 | False | 0.038 | True |
| $31_{ m long}$ | 0.01 | True | 0.01 | True | 0 | False | 0.067 | True |
| | | | | | | | | |

| | Parsing | | ${f Code_generation}$ | | Idempotency | | Correctness | |
|-----------------------------|---------|---------|------------------------|---------|-------------|---------|-------------|---------|
| | Time | Success | Time | Success | Tries | Success | Time | Success |
| 32 _mutable | 0.02 | True | 0.03 | True | 0 | False | 0.052 | True |
| 33 _namespace | 0 | False | 0 | False | 0 | False | 0 | False |
| 34 _new | 0.05 | True | 0.05 | True | 0 | False | 0.062 | True |
| $35_{ m not}$ | 0.2 | True | 0.2 | True | 0 | False | 0.396 | True |
| $36_{ m not_eq}$ | 0.18 | True | 0.19 | True | 0 | False | 0.414 | True |
| 37 _operator | 0.23 | True | 0.23 | True | 0 | False | 0.482 | True |
| 38 _or | 0.19 | True | 0.19 | True | 0 | False | 0.396 | True |
| $39_{ m or_eq}$ | 0.01 | True | 0.01 | True | 0 | False | 0.035 | True |
| $40_{	ext{-}}$ private | 0.01 | True | 0.01 | True | 0 | False | 0.039 | True |
| $41_\mathrm{protected}$ | 0.01 | True | 0.01 | True | 0 | False | 0.07 | True |
| 42 _public | 0.01 | True | 0.01 | True | 0 | False | 0.059 | True |
| 43 _register | 0.01 | True | 0.01 | True | 0 | False | 0.035 | True |
| 44 _reinterpret_cast | 0.2 | True | 0.2 | True | 0 | False | 0.401 | True |
| 45 _return | 0.01 | True | 0.01 | True | 0 | False | 0.034 | True |
| 46_short | 0.01 | True | 0.01 | True | 0 | False | 0.038 | True |
| $47_{ m signed}$ | 0.01 | True | 0.01 | True | 0 | False | 0.063 | True |
| 48_sizeof | 0.01 | True | 0.01 | True | 0 | False | 0.066 | True |
| $49_{ m static}$ | 0.19 | True | 0.19 | True | 0 | False | 0.392 | True |
| 50_static_cast | 0.21 | True | 0.22 | True | 0 | False | 0.512 | True |
| 51_struct | 0.24 | True | 0.24 | True | 0 | False | 0.493 | True |
| 52_switch | 0.19 | True | 0.2 | True | 0 | False | 0.411 | True |
| 53 _template | 0.01 | True | 0.01 | True | 0 | False | 0.066 | True |
| $54_{ m this}$ | 0.01 | True | 0.01 | True | 0 | False | 0.036 | True |
| $55_{ m throw}$ | 0 | False | 0 | False | 0 | False | 0 | False |
| $56_{ m true}$ | 0.01 | True | 0.01 | True | 0 | False | 0.066 | True |
| $57_{ m try}$ | 0 | False | 0 | False | 0 | False | 0 | False |
| 58 _typedef | 0.01 | True | 0.01 | True | 0 | False | 0.034 | True |
| $59_{	ext{typeid}}$ | 0.19 | True | 0.19 | True | 0 | False | 0.392 | True |
| 60 _typename | 0.01 | True | 0.01 | True | 0 | False | 0.036 | True |
| 61_union | 0.01 | True | 0.01 | True | 0 | False | 0.036 | True |
| $62_{ m unsigned}$ | 0.01 | True | 0.01 | True | 0 | False | 0.067 | True |
| $63_{ m using}$ | 0 | False | 0 | False | 0 | False | 0 | False |
| $64_{	ext{-}}	ext{virtual}$ | 0.01 | True | 0.01 | True | 0 | False | 0.036 | True |
| $65_{ m void}$ | 0.01 | True | 0.01 | True | 0 | False | 0.037 | True |
| $66_{ m volatile}$ | 0.02 | True | 0.02 | True | 0 | False | 0.08 | True |
| 67_{wchar_t} | 0.01 | True | 0.01 | True | 0 | False | 0.037 | True |
| $68_{	ext{-}}	ext{while}$ | 0 | False | 0 | False | 0 | False | 0 | False |
| $69_{ m xor}$ | 0.01 | True | 0.01 | True | 0 | False | 0.037 | True |
| 70_xor_eq | 0.01 | True | 0.01 | True | 0 | False | 0.038 | True |

2 C++11

| | Parsing | | $\operatorname{Code}_{\operatorname{-}\!\operatorname{generation}}$ | | Idempotency | | Correctness | |
|----------------------|---------|---------|---|---------|-------------|---------|-------------|---------|
| | Time | Success | Time | Success | Tries | Success | Time | Success |
| 00_alignas | 0.01 | True | 0.01 | True | 0 | False | 0.059 | True |
| $01_{ m alignof}$ | 0.21 | True | 0.21 | True | 0 | False | 0.398 | True |
| 02 _auto | 0 | False | 0 | False | 0 | False | 0 | False |
| 03_char16_t | 0.01 | True | 0.01 | True | 0 | False | 0.032 | True |
| 04_char32_t | 0.01 | True | 0.01 | True | 0 | False | 0.036 | True |
| $05_{ m constexpr}$ | 0.01 | True | 0.01 | True | 0 | False | 0.037 | True |
| $06_{ m decltype}$ | 0 | False | 0 | False | 0 | False | 0 | False |
| $07_noexcept$ | 0.01 | True | 0.01 | True | 0 | False | 0.039 | True |
| $08_{ m nullptr}$ | 0.2 | True | 0.2 | True | 0 | False | 0.399 | True |
| 09_static_assert | 0 | False | 0 | False | 0 | False | 0 | False |
| 10_thread_local | 0.01 | True | 0.01 | True | 0 | False | 0.038 | True |

3 C++20

| | Parsing | | $\operatorname{Code_generation}$ | | Idempotency | | Correctness | |
|----------------------|---------|---------|-----------------------------------|---------|-------------|---------|-------------|---------|
| | Time | Success | Time | Success | Tries | Success | Time | Success |
| 00_char8_t | 0 | False | 0 | False | 0 | False | 0 | False |
| $01_{ m concept}$ | 0 | False | 0 | False | 0 | False | 0 | False |
| 02 _consteval | 0 | False | 0 | False | 0 | False | 0 | False |
| $03_{ m constinit}$ | 0 | False | 0 | False | 0 | False | 0 | False |
| 04 _co_await | 0 | False | 0 | False | 0 | False | 0 | False |
| 05 _co_return | 0 | False | 0 | False | 0 | False | 0 | False |
| 06 _co_yield | 0 | False | 0 | False | 0 | False | 0 | False |
| 07 _export | 0 | False | 0 | False | 0 | False | 0 | False |
| 08 _requires | 0 | False | 0 | False | 0 | False | 0 | False |