

C++ Chrono Timeout API Map

Namespace / Class

API (for / until)

Return Type

std::this_thread

sleep_for(dur)
sleep_until(tp)

void (N/A)

std::condition_variable

wait_for(lk, dur)
wait_until(lk, tp)

std::cv_status::
timeout / no_timeout

**std::condition_variable
(with Predicate)**

wait_for(..., pred)
wait_until(..., pred)

bool
(pred result)

std::timed_mutex

try_lock_for(dur)
try_lock_until(tp)

bool
(success/fail)

std::unique_lock

try_lock_for(dur)
try_lock_until(tp)

bool
(owns lock?)

**std::future
std::shared_future**

wait_for(dur)
wait_until(tp)

std::future_status::
ready / timeout
/ deferred