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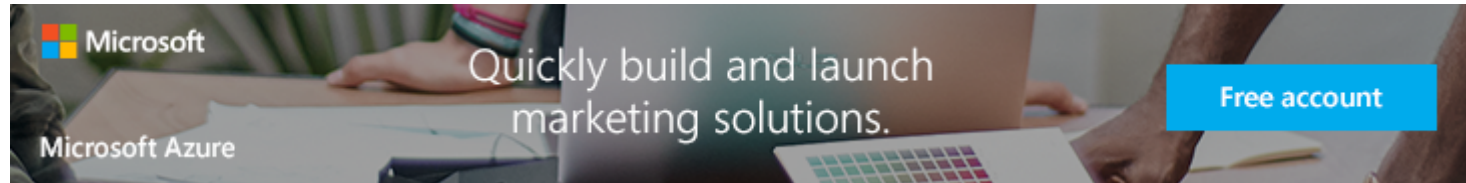
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header

<chrono>

Time library

chrono is the name of a header, but also of a sub-namespace: All the elements in this header (except for the [common_type](#) specializations) are not defined directly under the `std` namespace (like most of the standard library) but under the `std::chrono` namespace.

The elements in this header deal with time. This is done mainly by means of three concepts:

Durations

They measure time spans, like: one minute, two hours, or ten milliseconds.

In this library, they are represented with objects of the [duration](#) class template, that couples a *count representation* and a *period precision* (e.g., ten milliseconds has ten as *count representation* and milliseconds as *period precision*).

Time points

A reference to a specific point in time, like one's birthday, today's dawn, or when the next train passes.

In this library, objects of the [time_point](#) class template express this by using a [duration](#) relative to an *epoch* (which is a fixed point in time common to all [time_point](#) objects using the same clock).

Clocks

A framework that relates a *time point* to real physical time.

The library provides at least three clocks that provide means to express the current time as a [time_point](#): [system_clock](#), [steady_clock](#) and [high_resolution_clock](#).

For typical examples, see [steady_clock](#) or [system_clock](#).

Classes

duration and time_point:

duration	Duration (class template)
time_point	Time point (class template)

clocks:

<chrono>

classes:

[common_type \(duration\)](#)
[common_type \(time_point\)](#)

duration

[duration_values](#)

[high_resolution_clock](#)

[steady_clock](#)

[system_clock](#)

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[treat_as_floating_point](#)

functions:

[duration_cast](#)

[time_point_cast](#)

class typedefs:

[hours](#)

[microseconds](#)

[milliseconds](#)

[minutes](#)

[nanoseconds](#)

[seconds](#)

system_clock	System clock (class)
steady_clock	Steady clock (class)
high_resolution_clock	High resolution clock (class)

traits:

treat_as_floating_point	Treat as floating point (class template)
duration_values	Duration values (class template)
common_type (duration)	Specialization of common_type for duration (class template)

Functions

duration_cast	Duration cast (function template)
time_point_cast	Time_point cast (function template)

Class instantiation typedefs

The following convenience typedefs of instantiations of [duration](#) are also defined in this namespace:

hours	Duration in hours (class)
minutes	Duration in minutes (class)
seconds	Duration in seconds (class)
milliseconds	Duration in milliseconds (class)
microseconds	Duration in microseconds (class)
nanoseconds	Duration in nanoseconds (class)

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