



Class RealtimeClock

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- Defined in [File realtime_clock.hpp](#)

Inheritance Relationships

Base Type

- `public holoscan::Clock` ([Class Clock](#))

Class Documentation

```
class RealtimeClock : public holoscan::Clock
```

Real-time clock class.

The [RealtimeClock](#) respects the true duration of conditions such as [PeriodicCondition](#). It is the default clock type used in Holoscan SDK.

Public Functions

```
template<typename ArgT, typename ...ArgsT, typename =  
std::enable_if_t<!std::is_base_of_v<::holoscan::Resource, std::decay_t<ArgT>> &&  
(std::is_same_v<::holoscan::Arg, std::decay_t<ArgT>> ||  
std::is_same_v<::holoscan::ArgList, std::decay_t<ArgT>>>>>  
inline RealtimeClock(ArgT &&arg, ArgsT&&... args)
```

```
RealtimeClock() = default
```

```
RealtimeClock(const std::string &name, nvidia::gxf::RealtimeClock *component)
```

```
inline virtual const char *gxf_typename() const override
```

The underlying GXF component's name.

```
virtual void setup(ComponentSpec &spec)
```

Define the resource specification.

Parameters

spec – The reference to the component specification.

virtual double time() const override

The current time of the clock. Time is measured in seconds.

virtual int64_t timestamp() const override

The current timestamp of the clock. Timestamps are measured in nanoseconds.

virtual void sleep_for(int64_t duration_ns) override

Waits until the given duration has elapsed on the clock.

virtual void sleep_until(int64_t target_time_ns) override

Waits until the given target time.

void set_time_scale(double time_scale)

Set the time scale of the clock. A value of 1.0 corresponds to realtime. Values larger than 1.0 cause time to run faster, while values less than 1.0 cause time to run more slowly.

nvidia::gfx::RealtimeClock *get() const

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