Package ‘hmstimer’

July 9, 2020

Title 'hms' Based Timer

Version 0.1.0

Description Tracks elapsed clock time using a `hms::hms()` scalar,
which if running has an attribute named start
that specifies the system time when the timer was started.
The elapsed time is the value of the scalar
plus the difference between the current system time
and the system time when the timer was started.

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R topics documented:

`hms-timer` *hms Timer*

Description

A hms Timer is a `hms::hms()` scalar which if running has an attribute named start that specifies the system time when the timer was started.

Details

The elapsed time is the value of the scalar plus the difference between the current system time and the system time when the timer was started.

Examples

```
str(tmr_timer())
str(tmr_timer(1.5, start = TRUE))

x <- tmr_timer(1, start = TRUE)
print(x)
Sys.sleep(0.1)
print(x)
print(tmr_elapsed(x))
print(x)
```

`tmr_ceiling` *Ceiling hms Timer*

Description

Rounds a `hms_timer()` up to the nearest second.

Usage

```
tmr_ceiling(x)
```

Arguments

x	A `hms_timer()`.

Value

A hms_timer().

See Also

Other round: tmr_floor(), tmr_format(), tmr_round()

Examples

```
tmr_ceiling(tmr_timer(18.9))
tmr_ceiling(tmr_timer(122.1))
```

tmr_elapsed *Elapsed Time hms Timer*

Description

Returns the elapsed time for a hms_timer() as a hms_timer().

Usage

```
tmr_elapsed(x)
```

Arguments

x	A hms_timer().

Details

The elapsed time is the value of the scalar plus the difference between the current system time and the system time when the timer was started.

If the original hms_timer() was running then the new hms_timer() is assigned an attribute named start of the current system time.

Value

A hms_timer() of the elapsed time.

See Also

Other start_stop: tmr_is_started(), tmr_is_stopped(), tmr_reset(), tmr_start(), tmr_stop(), tmr_timer()

Examples

```
tmr <- tmr_start(tmr_timer())
print(tmr_elapsed(tmr))
Sys.sleep(0.01)
print(tmr_elapsed(tmr))
tmr <- tmr_stop(tmr)
print(tmr_elapsed(tmr))
Sys.sleep(0.01)
print(tmr_elapsed(tmr))
```

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tmr_floor *Floor hms Timer*

Description

Rounds a hms_timer() down to the nearest second.

Usage

```
tmr_floor(x)
```

Arguments

x A hms_timer().

Value

A hms_timer().

See Also

Other round: tmr_ceiling(), tmr_format(), tmr_round()

Examples

```
tmr_floor(tmr_timer(18.9))
tmr_floor(tmr_timer(122.1))
```

`tmr_format` *Format hms Timer*

Description

Converts a `hms_timer()` to a string of the clock time after rounding it to the number of digits.

Usage

```
tmr_format(x, digits = 3)
```

Arguments

`x`	A `hms_timer()`.
`digits`	A whole number of the number of decimal places.

Details

Negative values of digit are not permitted.

Value

A character string.

See Also

Other round: `tmr_ceiling()`, `tmr_floor()`, `tmr_round()`

Examples

```
tmr_format(tmr_timer(61.66))
tmr_format(tmr_timer(61.66), digits = 0)
```

`tmr_is_started` *Is hms Timer Started*

Description

Tests if a `hms_timer()` is started (as indicated by the presence of an attribute named start).

Usage

```
tmr_is_started(x)
```

Arguments

`x`	A `hms_timer()`.

Value

A flag (TRUE or FALSE).

See Also

Other start_stop: tmr_elapsed(), tmr_is_stopped(), tmr_reset(), tmr_start(), tmr_stop(), tmr_timer()

Examples

```
tmr <- tmr_timer(start = TRUE)
print(tmr_is_started(tmr))
tmr <- tmr_stop(tmr)
print(tmr_is_started(tmr))
```

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tmr_is_stopped *Is hms Timer Stopped*

Description

Tests if a hms_timer() is stopped (as indicated by the absence of an attribute named start).

Usage

```
tmr_is_stopped(x)
```

Arguments

x	A hms_timer().

Value

A flag.

See Also

Other start_stop: tmr_elapsed(), tmr_is_started(), tmr_reset(), tmr_start(), tmr_stop(), tmr_timer()

Examples

```
tmr <- tmr_timer(start = TRUE)
print(tmr_is_stopped(tmr))
tmr <- tmr_stop(tmr)
print(tmr_is_stopped(tmr))
```

tmr_reset *Reset hms Timer*

Description

Resets a hms_timer() by creating a new one.

Usage

```
tmr_reset(x, seconds = 0, start = FALSE)
```

Arguments

x	A hms_timer().
seconds	A non-negative numeric scalar of the initial number of seconds.
start	A flag indicating whether to start the timer.

Value

A hms_timer().

See Also

Other start_stop: tmr_elapsed(), tmr_is_started(), tmr_is_stopped(), tmr_start(), tmr_stop(), tmr_timer()

Examples

```
tmr <- tmr_timer(10)
print(tmr)
tmr_reset(tmr)
```

tmr_round *Round hms Timer*

Description

Rounds a hms_timer() after updating it to the elapsed time.

Usage

```
tmr_round(x, digits = 0)
```

Arguments

x	A hms_timer().
digits	A whole number of the number of decimal places.

Details

Negative values of digit are permitted.

Value

A `hms_timer()`.

See Also

Other round: `tmr_ceiling()`, `tmr_floor()`, `tmr_format()`

Examples

```
tmr_round(tmr_timer(18.9))
tmr_round(tmr_timer(18.9), 1)
tmr_round(tmr_timer(18.9), -1)
tmr_round(tmr_timer(121), -2) # 121 is rounded to 100 seconds
```

`tmr_start` *Start hms Timer*

Description

Starts a `hms_timer()` by adding an attribute named start of the current system time.

Usage

```
tmr_start(x)
```

Arguments

`x`	A `hms_timer()`.

Details

If the `hms_timer()` is already started, the function simply issues a warning and returns the original object.

Value

A started `hms_timer()`.

See Also

Other start_stop: `tmr_elapsed()`, `tmr_is_started()`, `tmr_is_stopped()`, `tmr_reset()`, `tmr_stop()`, `tmr_timer()`

Examples

```
tmr <- tmr_start(tmr_timer())
print(tmr_elapsed(tmr))
Sys.sleep(0.01)
print(tmr_elapsed(tmr))
```

tmr_stop *Stop hms Timer*

Description

Stops a hms_timer() after updating it to the elapsed time.

Usage

```
tmr_stop(x)
```

Arguments

x	A hms_timer().

Details

If the hms_timer() is already stopped, the function simply issues a warning and returns the original object.

Value

A stopped hms_timer().

See Also

Other start_stop: tmr_elapsed(), tmr_is_started(), tmr_is_stopped(), tmr_reset(), tmr_start(), tmr_timer()

Examples

```
tmr <- tmr_stop(tmr_timer(start = TRUE))
print(tmr_elapsed(tmr))
Sys.sleep(0.01)
print(tmr_elapsed(tmr))
```

`tmr_timer` *Create hms Timer*

Description

Creates a `hms_timer()`.

Usage

```
tmr_timer(seconds = 0, start = FALSE)
```

Arguments

`seconds`	A non-negative numeric scalar of the initial number of seconds.
`start`	A flag indicating whether to start the timer.

Value

A `hms_timer()`.

See Also

Other start_stop: `tmr_elapsed()`, `tmr_is_started()`, `tmr_is_stopped()`, `tmr_reset()`, `tmr_start()`, `tmr_stop()`

Examples

```
tmr <- tmr_timer()
print(tmr)
class(tmr)
```

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