Time, Duration & Scheduled

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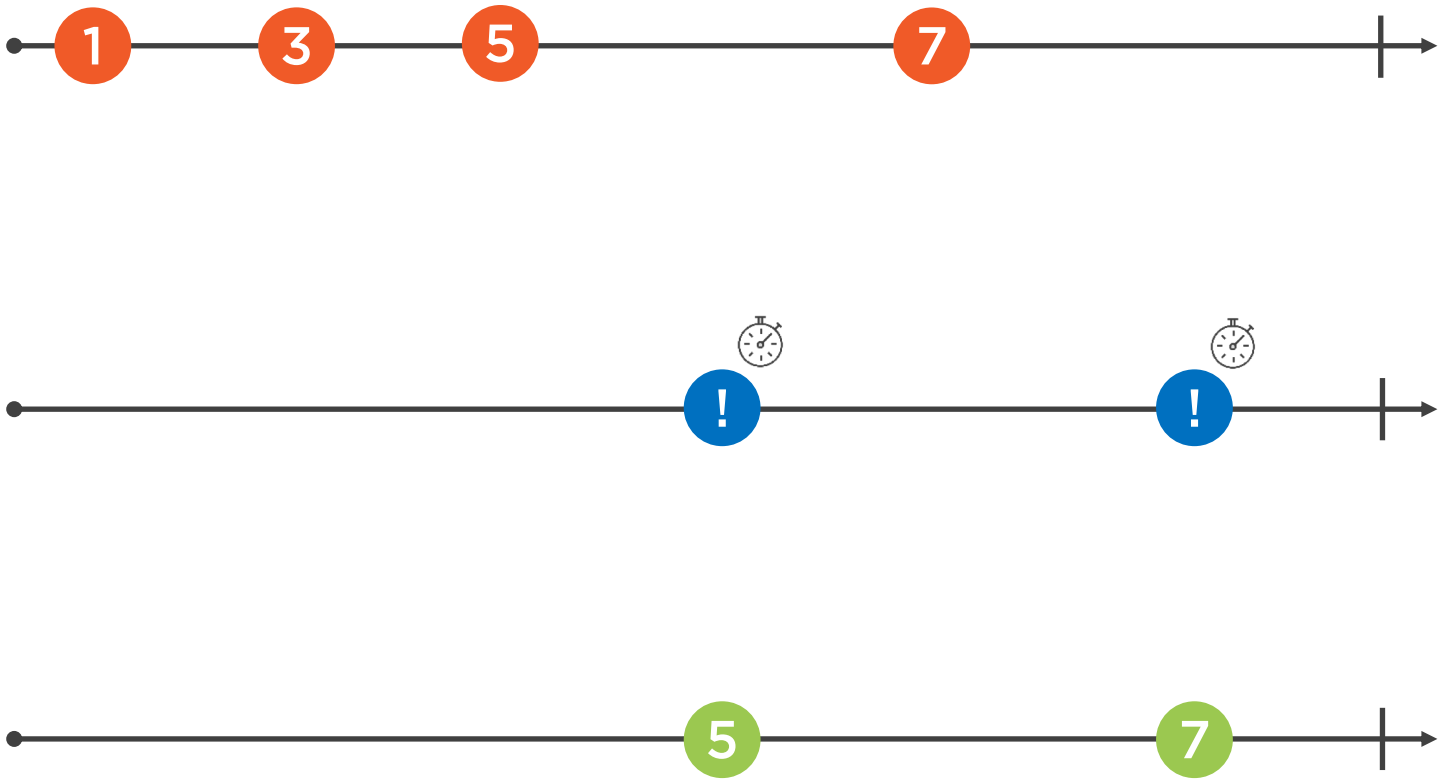
Operators

- auditTime
- sampleTime
- observeOn
- subscribeOn
- debounce
- debounceTime
- delay
- delayWhen
- throttleTime
- timeInterval
- timestamp

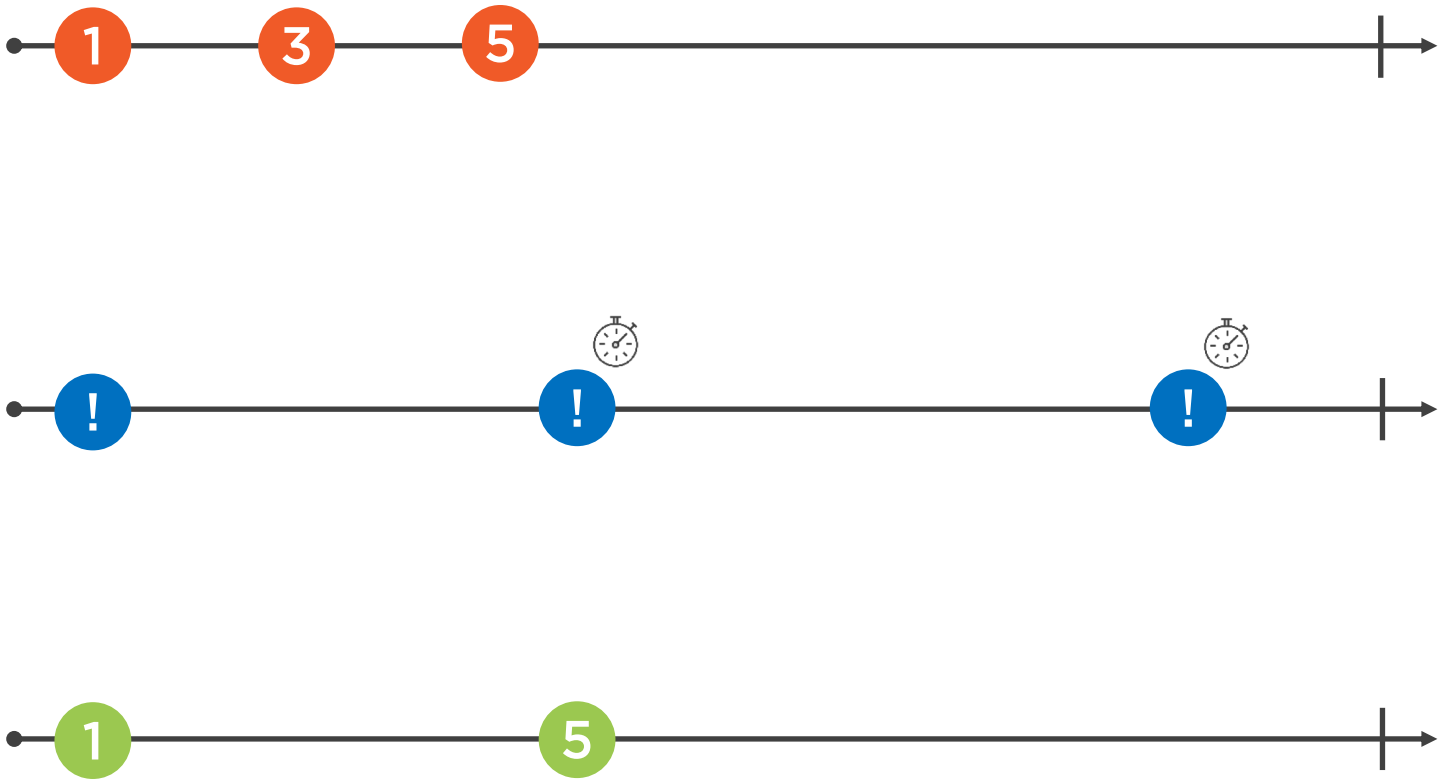
auditTime

Ignore values for specified time



sampleTime

Emit latest when signaled



observeOn

Use different scheduler

Huh?

Conceptual model

observeOn

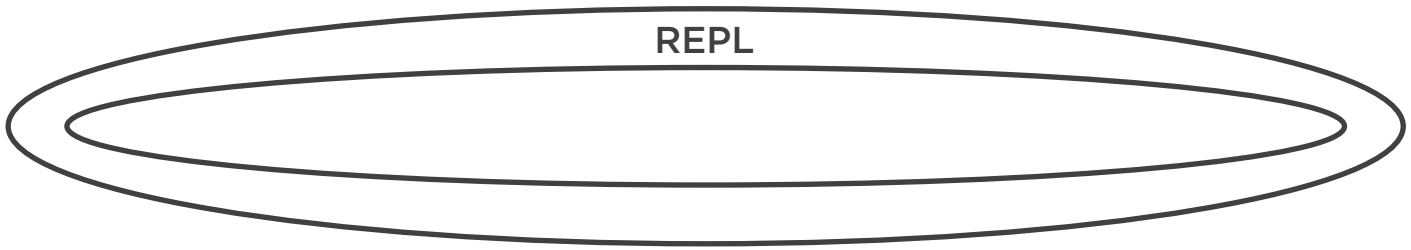
Use different scheduler

Huh?

Conceptual model

REPL

Task



observeOn

Use different scheduler

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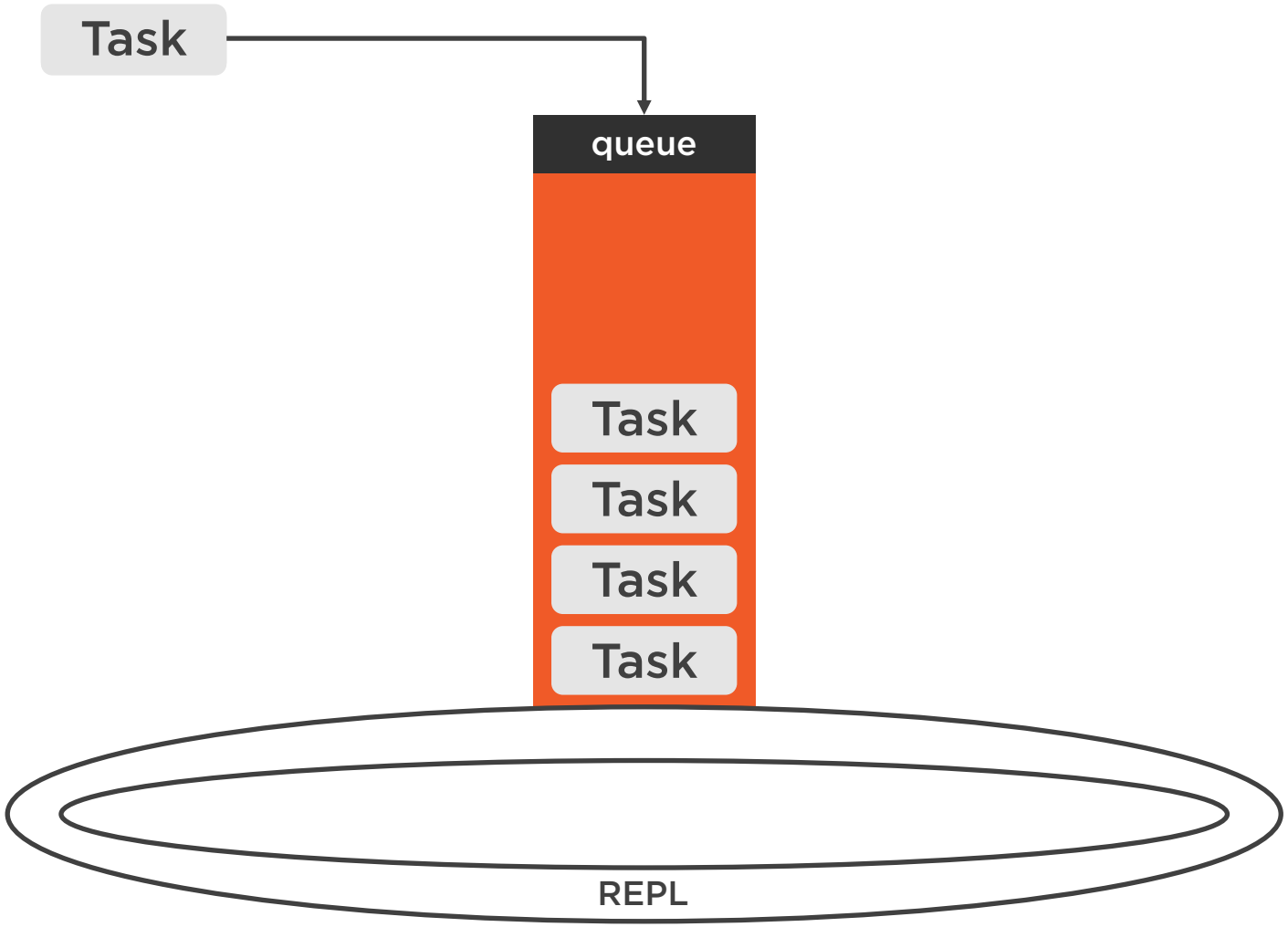
Conceptual model

REPL



observeOn

Use different scheduler

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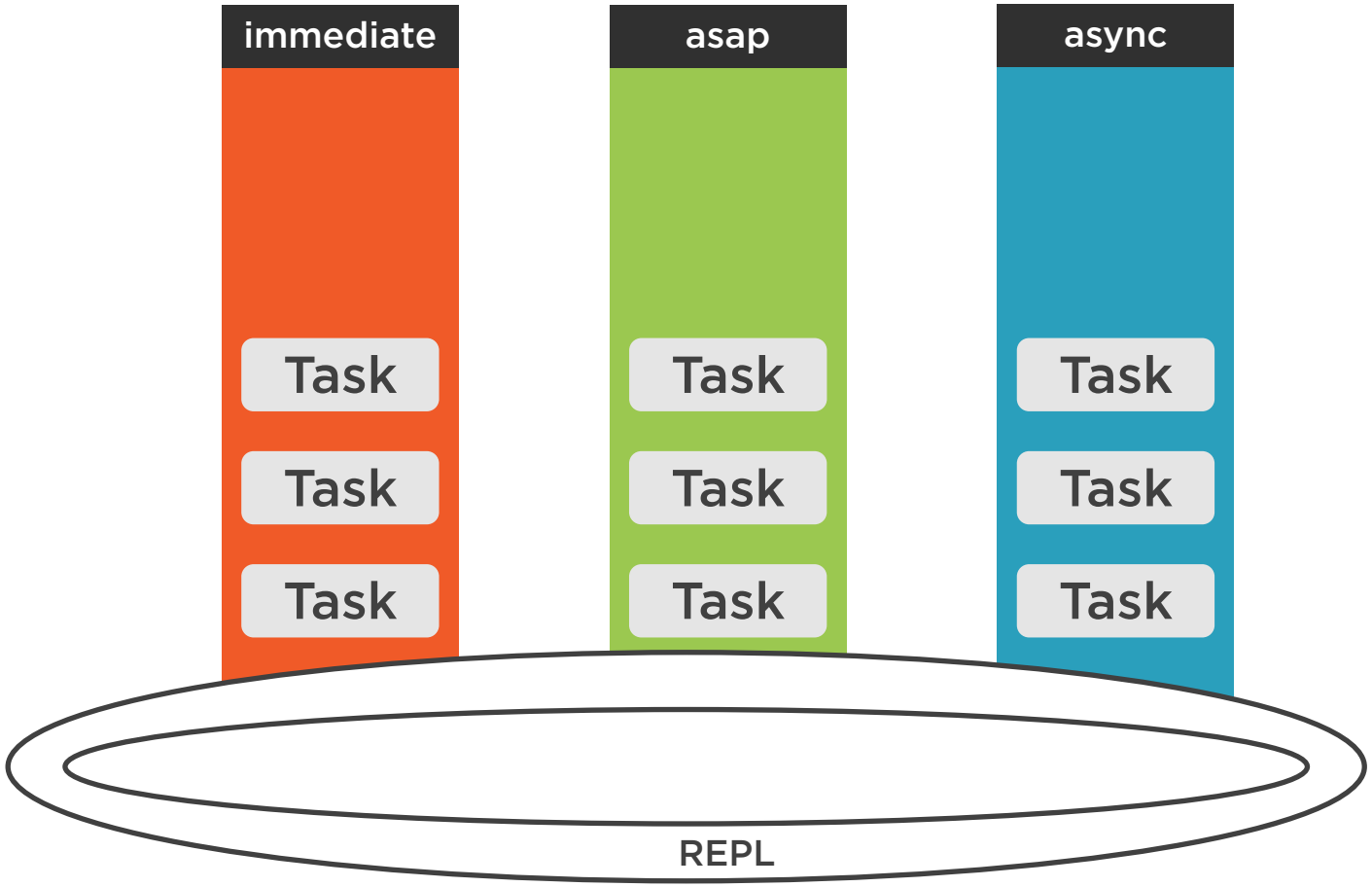

observeOn

Use different scheduler

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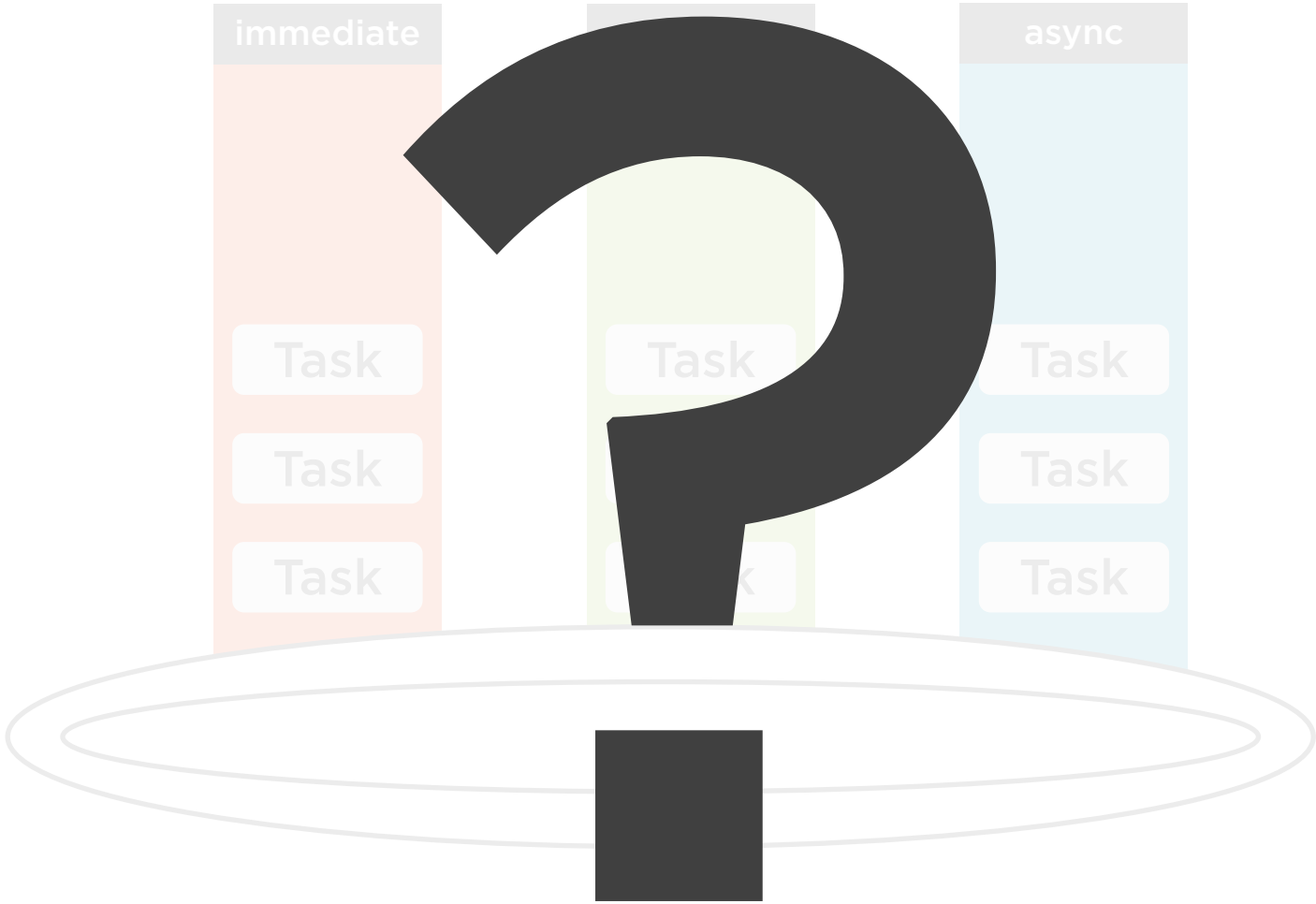
REPL



observeOn

Use different scheduler

Huh?

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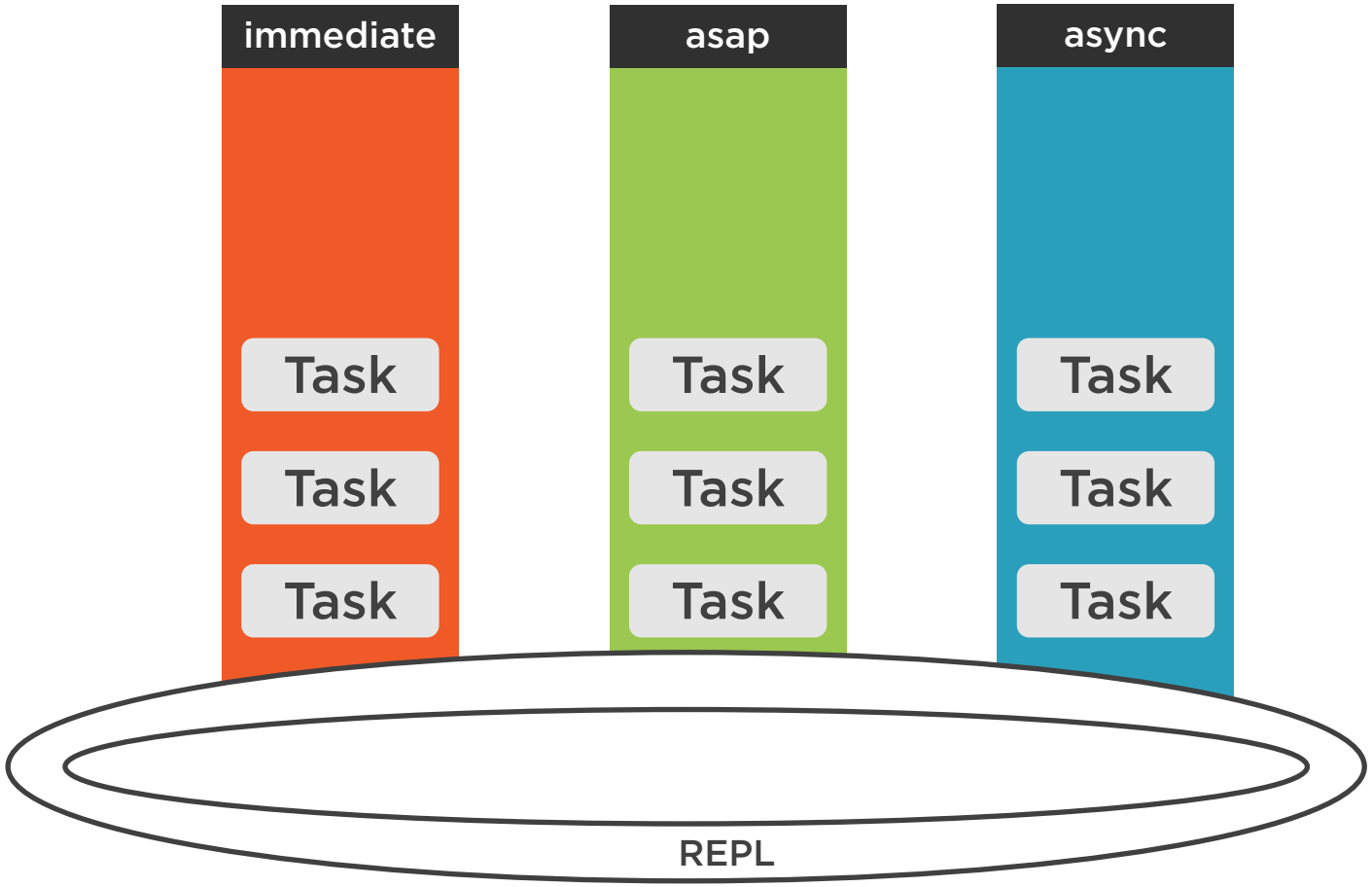
REPL



observeOn

```
of(a: T, scheduler?: SchedulerLike): Observable<T>
```

Parameters

a	Type: `T`.
scheduler	Optional. Default is `undefined`. Type: `SchedulerLike`.

```
sampleTime<T>(period: number, scheduler: SchedulerLike = async):
MonoTypeOperatorFunction<T>
```

Parameters

period	The sampling period expressed in milliseconds or the time unit determined internally by the optional `scheduler`.
scheduler	Optional. Default is `async`. The `SchedulerLike` to use for managing the timers that handle the sampling.

```
from<T>(input: ObservableInput<T>, scheduler?: SchedulerLike):
Observable<T>
```

Parameters

input	Type: `ObservableInput`.
scheduler	Optional. Default is `undefined`. Type: `SchedulerLike`.

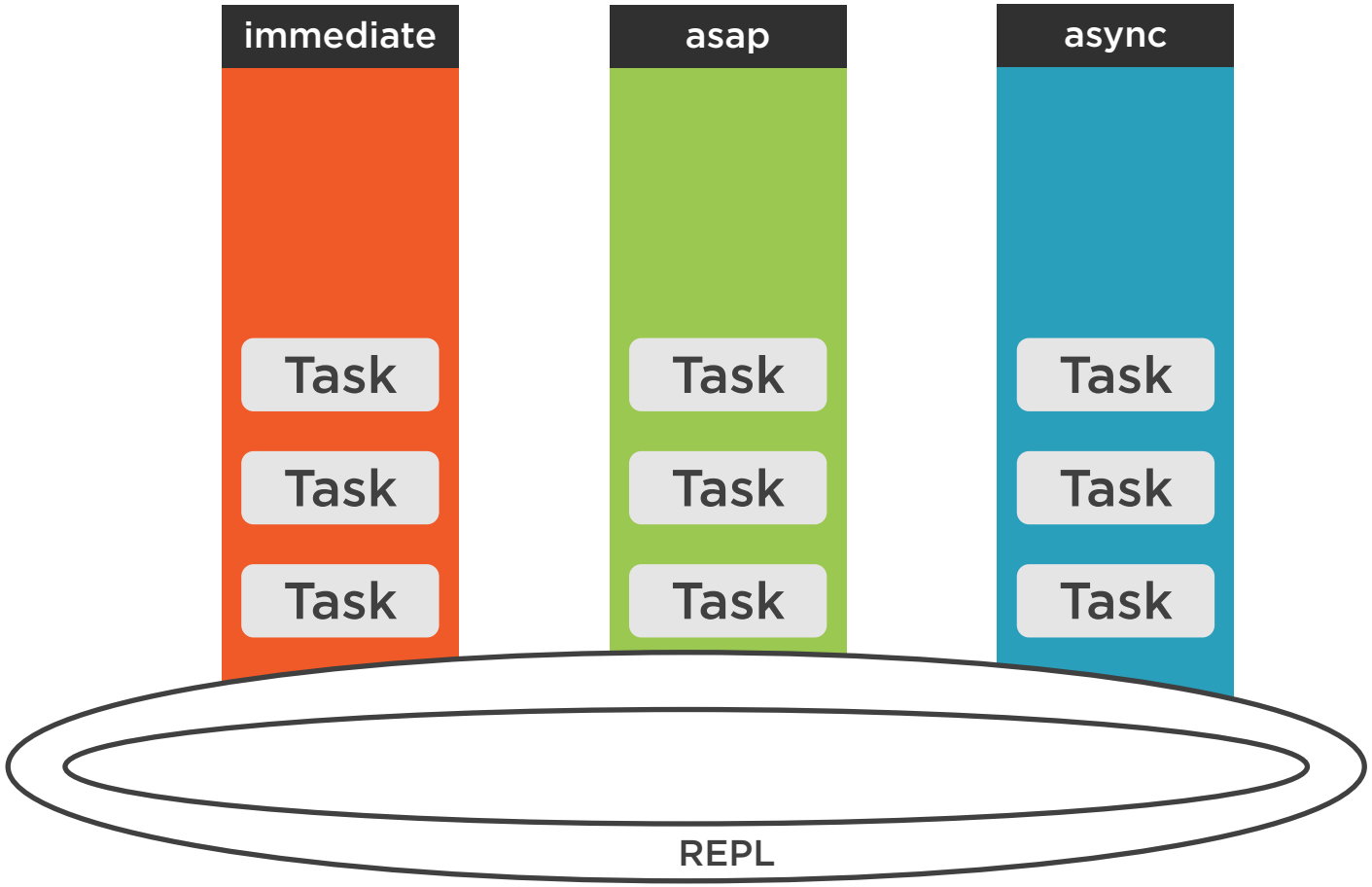
```
delay<T>(delay: number | Date, scheduler: SchedulerLike = async):
MonoTypeOperatorFunction<T>
```

Parameters

delay	The delay duration in milliseconds (a `number`) or a `Date` until which the emission of the source items is delayed.
scheduler	Optional. Default is `async`. The `SchedulerLike` to use for managing the timers that handle the time-shift for each item.

subscribeOn

Change Observable scheduler



observeOn vs. subscribeOn

(default)
asap queued
asap emitted
async queued
async emitted
immediate emitted

observeOn vs. subscribeOn

(default)
asap queued
asap emitted
async queued
async emitted
immediate emitted

observeOn
asap queued
async queued
immediate emitted
asap emitted
async emitted

observeOn: re-emit values on a new scheduler

observeOn vs. subscribeOn

(default)
asap queued
asap emitted
async queued
async emitted
immediate emitted

observeOn
asap queued
async queued
immediate emitted
asap emitted
async emitted

subscribeOn
immediate emitted
asap queued
asap emitted
async queued
async emitted

observeOn: re-emit values on a new scheduler

subscribeOn: change the scheduler used by the source Observable

Available Schedulers

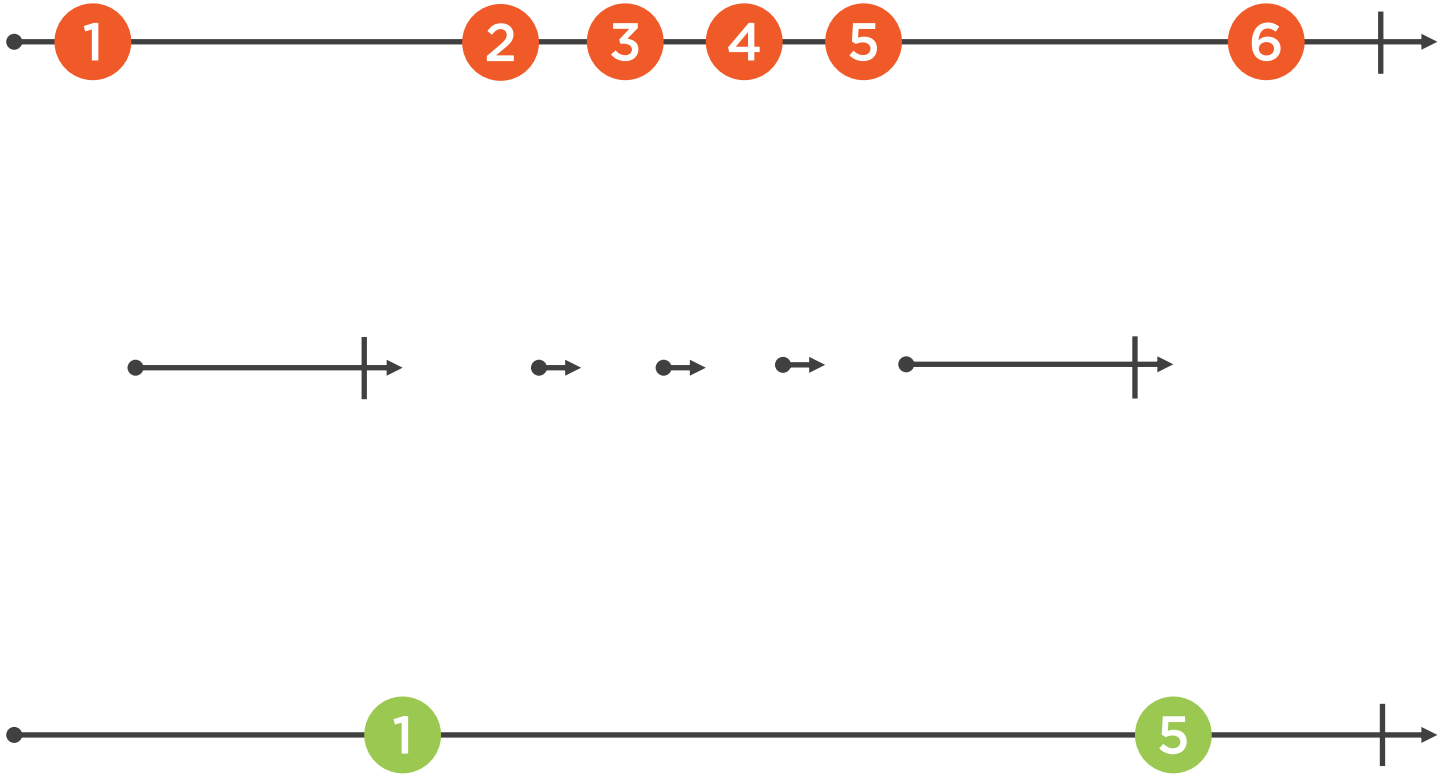
AsapScheduler	AsyncScheduler	QueueScheduler
AnimationFrame Scheduler	VirtualTimeScheduler	TestScheduler

https://xgrommx.github.io/rx-book/content/getting_started_with_rxjs/scheduling_and_concurrency.html

debounce

Most recent from batch

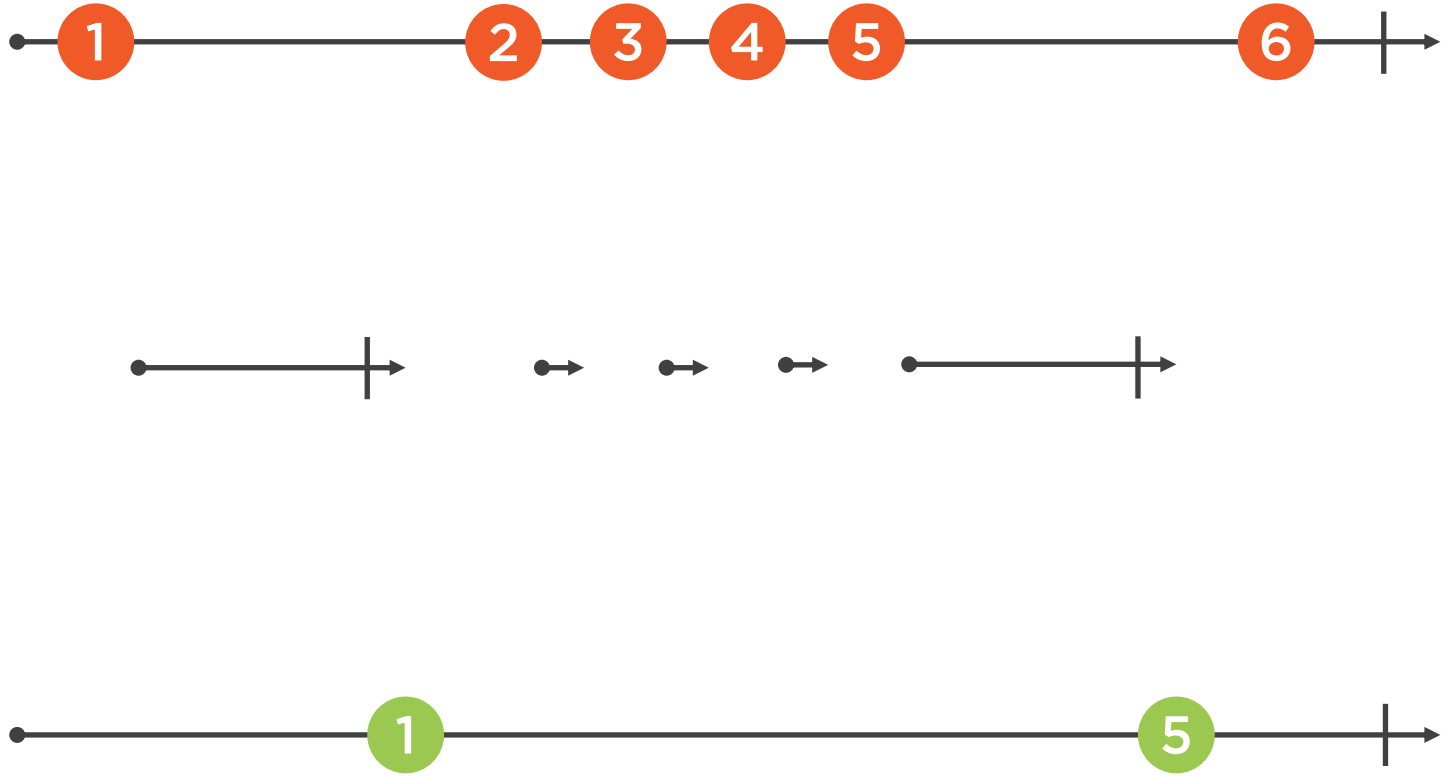
Batch defined by Observable



debounceTime

Most recent from batch

Batch defined in milliseconds

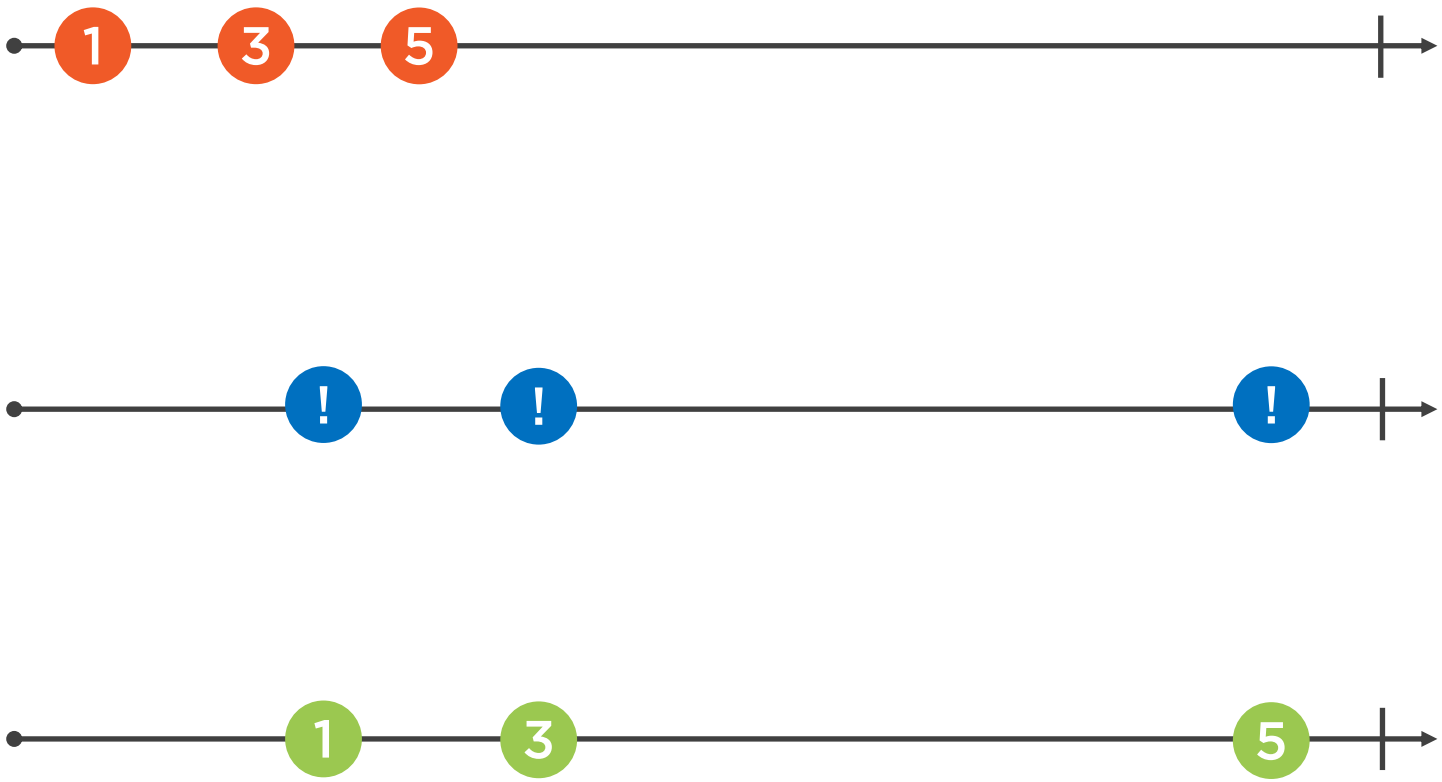


delay

Delay value start *n* milliseconds

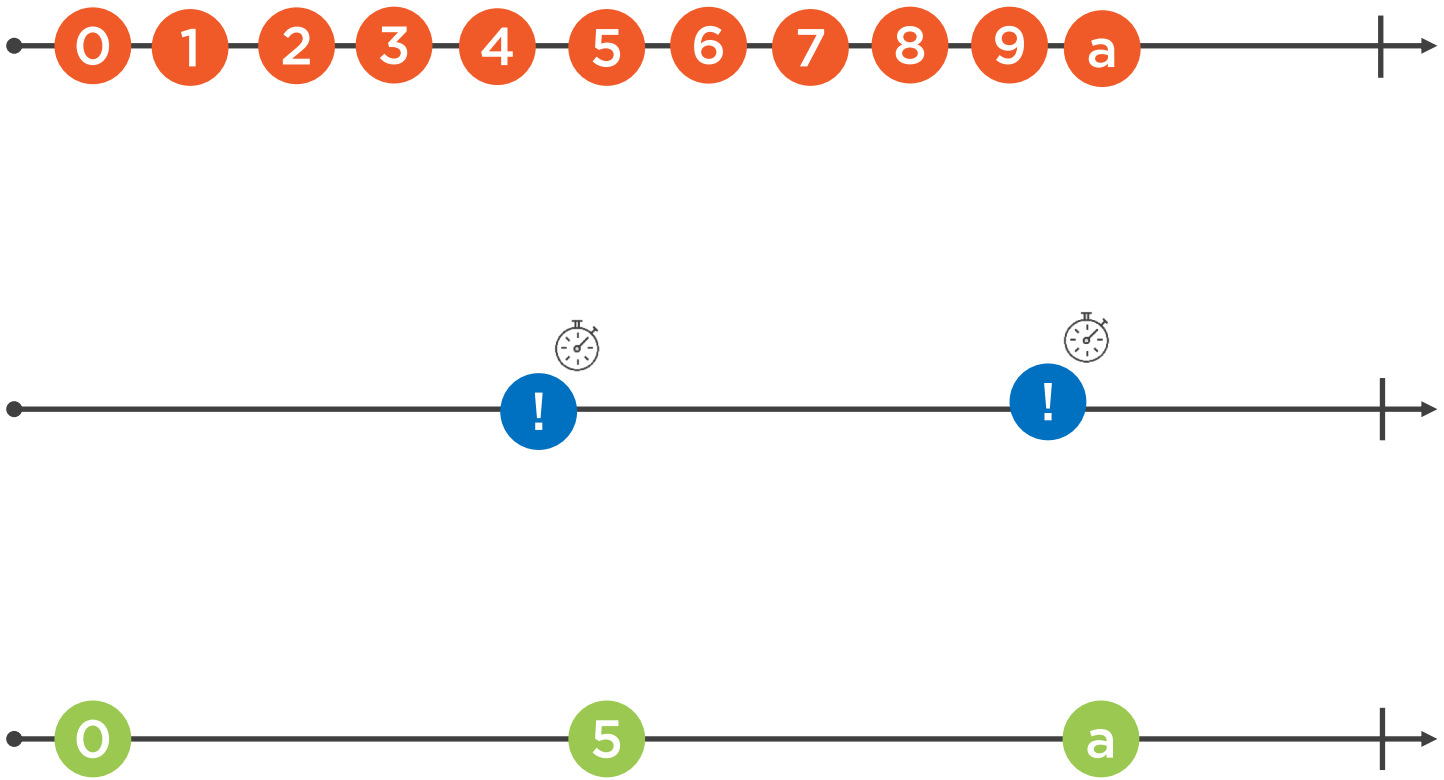
delayWhen

Delay values based on inner Observable



throttleTime

Emit first then next
after *n* milliseconds



timeInterval

Emit value metadata

{ **value:** (value), **interval:** (interval) }

timeStamp

Emit value metadata

{ **value:** (value), **timestamp:** (timestamp) }