
Breathe Sample Documentation

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CHAPTER 1

Getting Started

Defined in `stream/stream.hpp`

2.1 Sum

```
template <typename T>
struct Sum
    Sum struct to accumulate the values.
```

Public Functions

```
Sum ()
    Constructor.
```

```
T Zero ()
    Get the initial value.
```

Return The initial value.

```
void operator () (T n)
    Call operator to accumulate a value.
```

Parameters

- *n*: a value to be accumulated.

Public Members

```
T sum
    The sum value.
```


3.1 accumulate

template <typename It, typename Result = typename std::iterator_traits<It>::value_type>

Result stream: **accumulate** (It *first*, It *last*)

Computes the sum of the given values.

Return The result.

Parameters

- *first*: the range first.
- *last*: the range last.

3.2 average

template <typename It, typename Result = typename std::iterator_traits<It>::value_type>

Result stream: **average** (It *first*, It *last*)

Computes the average of the given values.

Return The result.

Parameters

- *first*: the range first.
- *last*: the range last.

3.3 average_float

template <typename It>

float stream: **average_float** (*It first, It last*)
Computes the average(float) of the given values.

Return The float result.

Parameters

- `first`: the range first.
- `last`: the range last.

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