Function

vDSP_sve

Calculates the sum of values in a single-precision vector.

iOS 4.0+ | iPadOS 4.0+ | Mac Catalyst 13.1+ | macOS 10.4+ | tvOS | visionOS 1.0+ | watchOS 2.0+

```
extern void vDSP_sve(const float * __A, vDSP_Stride __I, float * __C, vDSP
_Length __N);
```

Parameters

__A
Single-precision real input vector.

__I
Stride for A.

__C
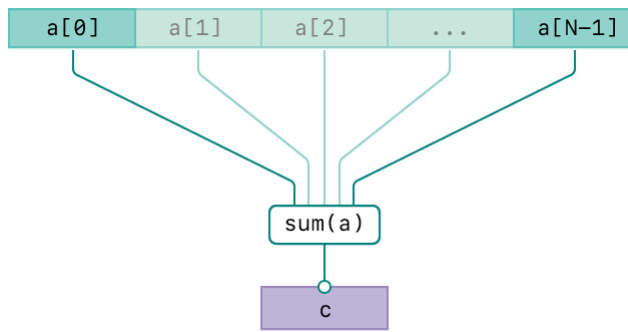Single-precision real output scalar.

__N
The number of elements to process.

Discussion

This function calculates the sum of the first N elements of A and writes the result to C:

The operation is:

```
C[0] = sum(A[n], 0 <= n < N);
```

The following code shows an example of using vDSP_sve:

```swift
let stride = vDSP_Stride(1)

let a: [Float] = [-1.5, 2.25, 3.6,
                  0.2, -0.1, -4.3]
let n = vDSP_Length(a.count)

var c: Float = .nan

vDSP_sve(a,
         stride,
         &c,
         n)

// Prints "sum 0.1500"
print(String(format: "sum %.4f", c))
```

See Also

Vector Summation

vDSP_sveD

Calculates the sum of values in a double-precision vector.

vDSP_svemg

Calculates the sum of magnitudes in a single-precision vector.

vDSP_svemgD

Calculates the sum of magnitudes in a double-precision vector.

vDSP_svesq

Calculates the sum of squares in a single-precision vector.

vDSP_svesqD

Calculates the sum of squares in a double-precision vector.

vDSP_sve_svesq

Calculates the sum of values and the sum of squares in a single-precision vector.

vDSP_sve_svesqD

Calculates the sum of values and the sum of squares in a double-precision vector.

vDSP_svs

Calculates the sum of signed squares in a single-precision vector.

vDSP_svsD

Calculates the sum of signed squares in a double-precision vector.