Documentation Language: Swift

Accelerate / vDSP / divide(_:_:)

Type Method

divide(_:_:)

Returns the double-precision element-wise division of two vectors.

iOS 13.0+ | iPadOS 13.0+ | Mac Catalyst | macOS 10.15+ | tvOS 13.0+ | visionOS | watchOS 6.0+

```
static func divide<T, U>(
    _ vectorA: T,
    _ vectorB: U
) -> [Double] where T : AccelerateBuffer, U : Accelerate
Buffer, T.Element == Double, U.Element == Double
```

Parameters

vectorA

The first input vector, A.

vectorB

The second input vector, B.

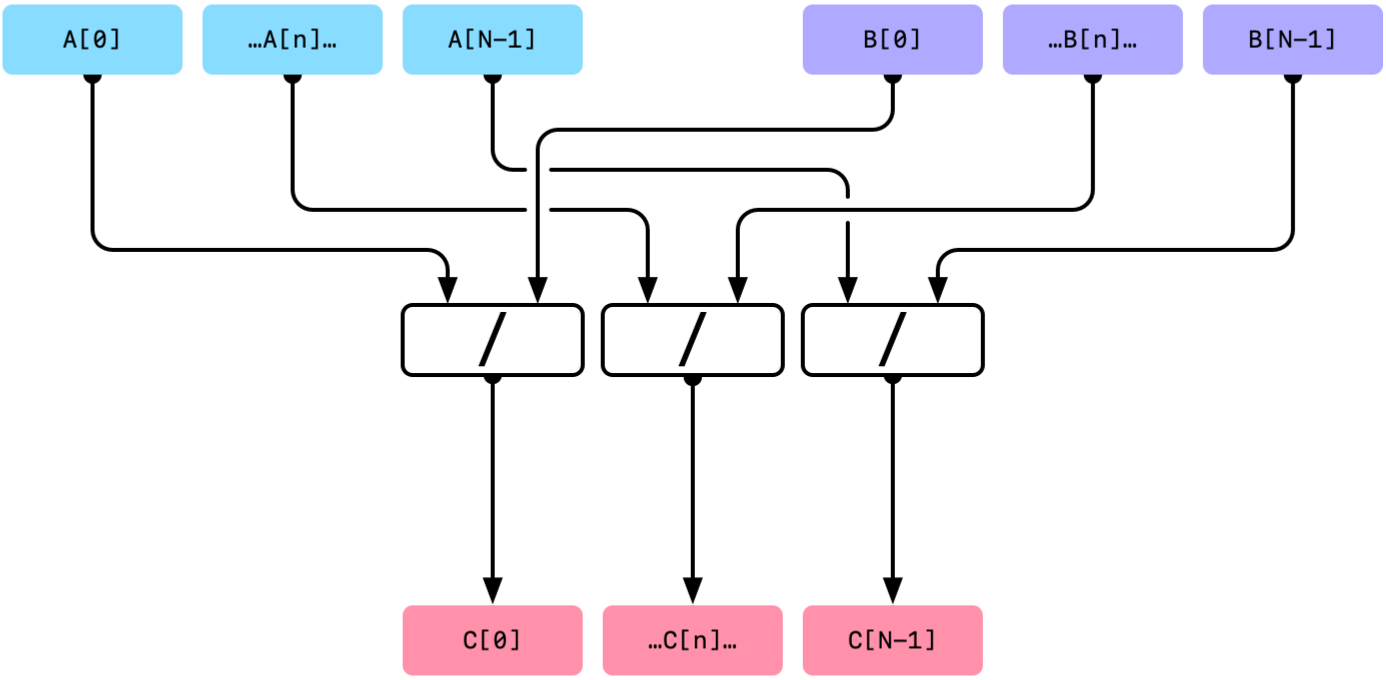
Return Value

The output vector, C.

Discussion

This function calculates the division of the first N elements of input vectors A and B, and writes the result to output vector C.

```
for (n = 0; n < N; ++n)
    C[n] = A[n] / B[n];
```



The following code shows an example of using this function:

```
    let a: [Double] = [10, 20, 30, 40, 50]
    let b: [Double] = [ 1,  2,  3,  4,  5]

    let c = vDSP.divide(a, b)

    // Prints "[10.0, 10.0, 10.0, 10.0, 10.0]".
    print(c)
```

See Also

Division

`static func divide<U>(Double, U) -> [Double]`

Returns the double-precision element-wise division of a scalar value and a vector.

`static func divide<U>(U, Double) -> [Double]`

Calculates the double-precision element-wise division of a vector and a scalar value.

`static func divide<U>(Float, U) -> [Float]`

Returns the single-precision element-wise division of a scalar value and a vector.

```
static func divide<U>(U, Float) -> [Float]
```

Calculates the single-precision element-wise division of a vector and a scalar value.

```
static func divide<T, U>(T, U) -> [Float]
```

Returns the single-precision element-wise division of two vectors.

```
static func divide<U, V>(Double, U, result: inout V)
```

Calculates the double-precision element-wise division of a scalar value and a vector.

```
static func divide<U, V>(Float, U, result: inout V)
```

Calculates the single-precision element-wise division of a scalar value and a vector.

```
static func divide<U, V>(U, Double, result: inout V)
```

Calculates the double-precision element-wise division of a vector and a scalar value.

```
static func divide<U, V>(U, Float, result: inout V)
```

Calculates the single-precision element-wise division of a vector and a scalar value.

```
static func divide<T, U, V>(T, U, result: inout V)
```

Calculates the double-precision element-wise division of two vectors.

```
static func divide<T, U, V>(T, U, result: inout V)
```

Calculates the single-precision element-wise division of two vectors.

```
static func divide(DSPSplitComplex, by: DSPSplitComplex, count: Int, result: inout DSPSplitComplex)
```

Calculates the single-precision elementwise division of a complex vector by a complex vector.

```
static func divide(DSPDoubleSplitComplex, by: DSPDoubleSplitComplex, count: Int, result: inout DSPDoubleSplitComplex)
```

Calculates the double-precision elementwise division of a complex vector by a complex vector.

```
static func divide<U>(DSPSplitComplex, by: U, result: inout DSPSplitComplex)
```

Calculates the single-precision elementwise division of a complex vector by a real vector.

```
static func divide<U>(DSPDoubleSplitComplex, by: U, result: inout DSPDoubleSplitComplex)
```

Calculates the double-precision elementwise division of a complex vector by a complex vector.