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## Function

# vDSP\_vintb

Calculates the linear interpolation between the supplied single-precision vectors using the specified stride.

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

```
extern void vDSP_vintb(const float * __A, vDSP_Stride __IA, const float * __B, vDSP_Stride __IB, const float * __C, float * __D, vDSP_Stride __ID, vDSP_Length __N);
```

## Parameters

**\_\_A**

Single-precision real input vector.

**\_\_IA**

Stride for A.

**\_\_B**

Single-precision real input vector.

**\_\_IB**

Stride for B.

**\_\_C**

Single-precision real input scalar: interpolation constant.

**\_\_D**

Single-precision real output vector.

**--ID**

Stride for D.

**--N**

The number of elements to process.

## Discussion

This function interpolates between the first N elements of A and B by taking the difference between corresponding elements, multiplying it by the constant C, and adding this to the corresponding element of A; results are left in corresponding elements of D:

$$D_{nID} = A_{nIA} + C[B_{nIB} - A_{nIA}] \quad n = \{0, N-1\}$$

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## See Also

### Vector-to-Vector Linear Interpolation

**vDSP\_vintbD**

Calculates the linear interpolation between the supplied double-precision vectors using the specified stride.