

[Accelerate](#) / [vDSP](#) / `gather(_:indices:)`

Type Method

## gather(\_:indices:)

Returns a gathered copy of the specified double-precision vector using a vector that defines the indices to keep.

iOS 14.0+ | iPadOS 14.0+ | Mac Catalyst | macOS 11.0+ | tvOS 14.0+ | visionOS | watchOS 7.0+

```
static func gather<T, U>(
    _ vector: T,
    indices: U
) -> [Double] where T : AccelerateBuffer, U : Accelerate
Buffer, T.Element == Double, U.Element == UInt
```

---

## Parameters

### **vector**

The source vector that the function gathers.

### **indices**

The vector that contains the one-based indices.

## Return Value

The result of the gather operation.

## Discussion

The following code shows an example of gathering the values in `source` using the values in `indices`:

```
let source: [Double] = [10, 20,  
                      30, 40,  
                      50, 60,  
                      70, 80]  
  
let indices: [UInt] = [1, 3, 5, 7]  
  
let destination = vDSP.gather(source,  
                               indices: indices)  
  
// Prints "[10.0, 30.0, 50.0, 70.0]".  
print(destination)
```

## See Also

### Vector gathering functions

```
static func gather<T, U>(T, indices: U) -> [Float]
```

Returns a gathered copy of the specified single-precision vector using a vector that defines the indices to keep.

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

Gathers the specified single-precision vector using a vector that defines the indices to keep.

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

Gathers the specified double-precision vector using a vector that defines the indices to keep.