Structure

SHA3_512

An implementation of Secure Hashing Algorithm 3 (SHA-3) hashing with a 512-bit digest.

iOS 26.0+ | iPadOS 26.0+ | Mac Catalyst 26.0+ | macOS 26.0+ | tvOS 26.0+ | visionOS 2.0+ | watchOS 26.0+

```
struct SHA3_512
```

Overview

The SHA3_512 hash implements the HashFunction protocol for the specific case of SHA-3 hashing with a 512-bit digest (SHA3_512Digest). Larger digests take more space but are more secure.

Applications can compute the digest by calling the static `hash(data:)` method once. Alternatively, if the data to hash is too large to fit in memory, applications can compute the digest iteratively by creating a new hash instance, calling the `update(data:)` method repeatedly with blocks of data, and then calling the finalize() method to get the result.

Topics

Initializers

`init()`

Creates a SHA3-512 hash function.

Instance Methods

func finalize() -> SHA3_512.Digest

    Finalizes the hash function and returns the computed digest.

func update(bufferPointer: UnsafeRawBufferPointer)

    Incrementally updates the hash function with the contents of the buffer.

Type Aliases

typealias Digest

    The digest type for a SHA3-512 hash function.

Type Properties

static let blockByteCount: Int

    The number of bytes that represents the hash function's internal state.

static let byteCount: Int

    The number of bytes in a SHA3-512 digest.

Relationships

Conforms To

```
Copyable
HashFunction
Sendable
SendableMetatype
```