

□ Documentation

[Swift](#) / [Swift Standard Library](#) / Initialization with Literals

API Collection

Initialization with Literals

Allow values of your type to be expressed using different kinds of literals.

Topics

Collection Literals

`protocol ExpressibleByArrayLiteral`

A type that can be initialized using an array literal.

`protocol ExpressibleByDictionaryLiteral`

A type that can be initialized using a dictionary literal.

Value Literals

`protocol ExpressibleByIntegerLiteral`

A type that can be initialized with an integer literal.

`protocol ExpressibleByFloatLiteral`

A type that can be initialized with a floating-point literal.

`protocol ExpressibleByBooleanLiteral`

A type that can be initialized with the Boolean literals `true` and `false`.

`protocol ExpressibleByNilLiteral`

A type that can be initialized using the `nil` literal, `nil`.

`struct StaticBigInt`

An immutable arbitrary-precision signed integer.

String Literals

`protocol ExpressibleByStringLiteral`

A type that can be initialized with a string literal.

`protocol ExpressibleByExtendedGraphemeClusterLiteral`

A type that can be initialized with a string literal containing a single extended grapheme cluster.

`protocol ExpressibleByUnicodeScalarLiteral`

A type that can be initialized with a string literal containing a single Unicode scalar value.

`protocol ExpressibleByStringInterpolation`

A type that can be initialized by string interpolation with a string literal that includes expressions.

`protocol StringInterpolationProtocol`

Represents the contents of a string literal with interpolations while it's being built up.

`struct DefaultStringInterpolation`

Represents a string literal with interpolations while it's being built up.

Default Types for Literals

☰ Default Literal Types

Type aliases representing the concrete type that a literal takes when no other type information is provided.

See Also

Tools for Your Types

☰ Basic Behaviors

Use your custom types in operations that depend on testing for equality or order and as members of sets and dictionaries.

☰ Encoding, Decoding, and Serialization

Serialize and deserialize instances of your types with implicit or customized encoding.