

[Foundation](#) / Strings and Text

API Collection

Strings and Text

Create and process strings of Unicode characters, use regular expressions to find patterns, and perform natural language analysis of text.

Topics

Strings

`@frozen struct String`

A Unicode string value that is a collection of characters.

⋮ String Encodings

Constants for encoding standards used when converting raw data to and from string representations.

Strings with Metadata

`struct AttributedString`

A value type for a string with associated attributes for portions of its text.

`struct AttributedString`

A portion of an attributed string.

⋮ Attributed String Supporting Types

Types that the attributed string, attributed substring, and helper types extend or conform to, for sharing common functionality.

`class NSAttributedString`

A string of text that manages data, layout, and stylistic information for ranges of characters to support rendering.

```
class NSMutableAttributedString
```

A mutable string with associated attributes (such as visual style, hyperlinks, or accessibility data) for portions of its text.

Characters

```
struct CharacterSet
```

A set of Unicode character values for use in search operations.

```
typealias UnicodeScalar = Unicode.Scalar
```

Pattern Matching

```
class Scanner
```

A string parser that scans for substrings or characters in a character set, and for numeric values from decimal, hexadecimal, and floating-point representations.

```
class NSRegularExpression
```

An immutable representation of a compiled regular expression that you apply to Unicode strings.

```
class NSDataDetector
```

A specialized regular expression object that matches natural language text for predefined data patterns.

```
class NSTextCheckingResult
```

An occurrence of textual content found during the analysis of a block of text, such as when matching a regular expression.

```
let NSNotFound: Int
```

A value indicating that a requested item couldn't be found or doesn't exist.

Spelling and Grammar

```
class NSSpellServer
```

A server that your app uses to provide a spell checker service to other apps running in the system.

`protocol NSSpellServerDelegate`

The optional methods implemented by the delegate of a spell server.

Localization

`struct Locale`

Information about linguistic, cultural, and technological conventions for use in formatting data for presentation.

`class NSOrthography`

A description of the linguistic content of natural language text, typically used for spelling and grammar checking.

`func NSLocalizedString(String, tableName: String?, bundle: Bundle, value: String, comment: String) -> String`

Returns a localized string from a table that Xcode generates for you when exporting localizations.

`struct LocalizedStringResource`

A reference to a localizable string, accessible from another process.

`protocol CustomLocalizedStringResourceConvertible`

A type that provides an out-of-process localizable description.

`struct URLResource`

A resource located at a particular file URL within a bundle.

Deprecated

~~`class NSLinguisticTagger`~~

Analyze natural language text to tag part of speech and lexical class, identify names, perform lemmatization, and determine the language and script.

Deprecated

⋮ `Deprecated String Encodings`

See Also

Fundamentals

☰ Numbers, Data, and Basic Values

Work with primitive values and other fundamental types used throughout Cocoa.

☰ Collections

Use arrays, dictionaries, sets, and specialized collections to store and iterate groups of objects or values.

☰ Dates and Times

Compare dates and times, and perform calendar and time zone calculations.

☰ Units and Measurement

Label numeric quantities with physical dimensions to allow locale-aware formatting and conversion between related units.

☰ Data Formatting

Convert numbers, dates, measurements, and other values to and from locale-aware string representations.

☰ Filters and Sorting

Use predicates, expressions, and sort descriptors to examine elements in collections and other services.