

[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 AttributedSubstring`

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.