

Open Source Swift





New programming language

Open Source



OpenSource



Open Source

Linux



Open Source



Linux



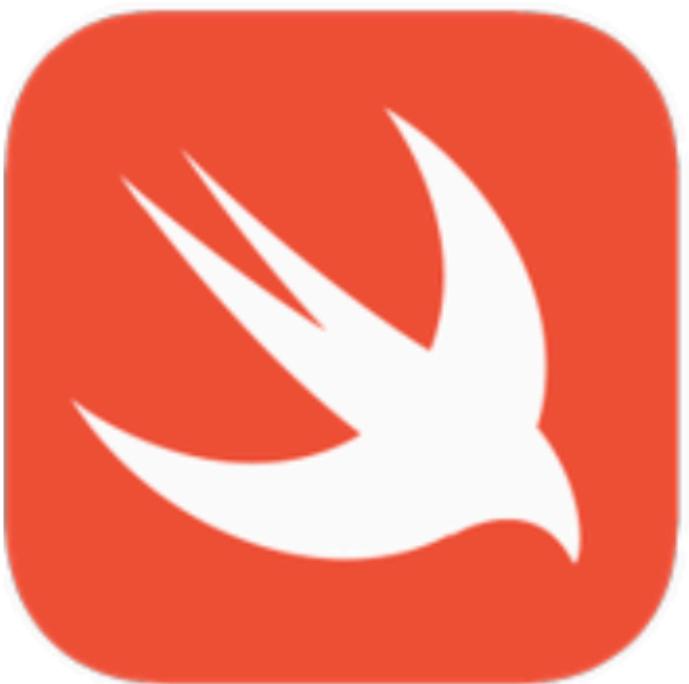


Swift Language ✅
@SwiftLang



Following

Swift is now open source! Read the full
launch announcement on the Swift blog
developer.apple.com/swift/blog



Swift

RETWEETS

1,227

LIKES

794



swift.org

The screenshot shows a Mac OS X browser window displaying the Swift.org website. The title bar reads "Apple Inc. swift.org". The main content area features a large "Welcome to Swift.org" heading. To the left is a sidebar with the Swift logo and a vertical list of links:

- ABOUT SWIFT
- BLOG
- DOWNLOAD
- GETTING STARTED
- DOCUMENTATION
- SOURCE CODE
- COMMUNITY
- CONTRIBUTING
- PROJECTS
- COMPILER AND STANDARD LIBRARY
- PACKAGE MANAGER
- CORE LIBRARIES
- REPL AND DEBUGGER

The main content area includes the following text:

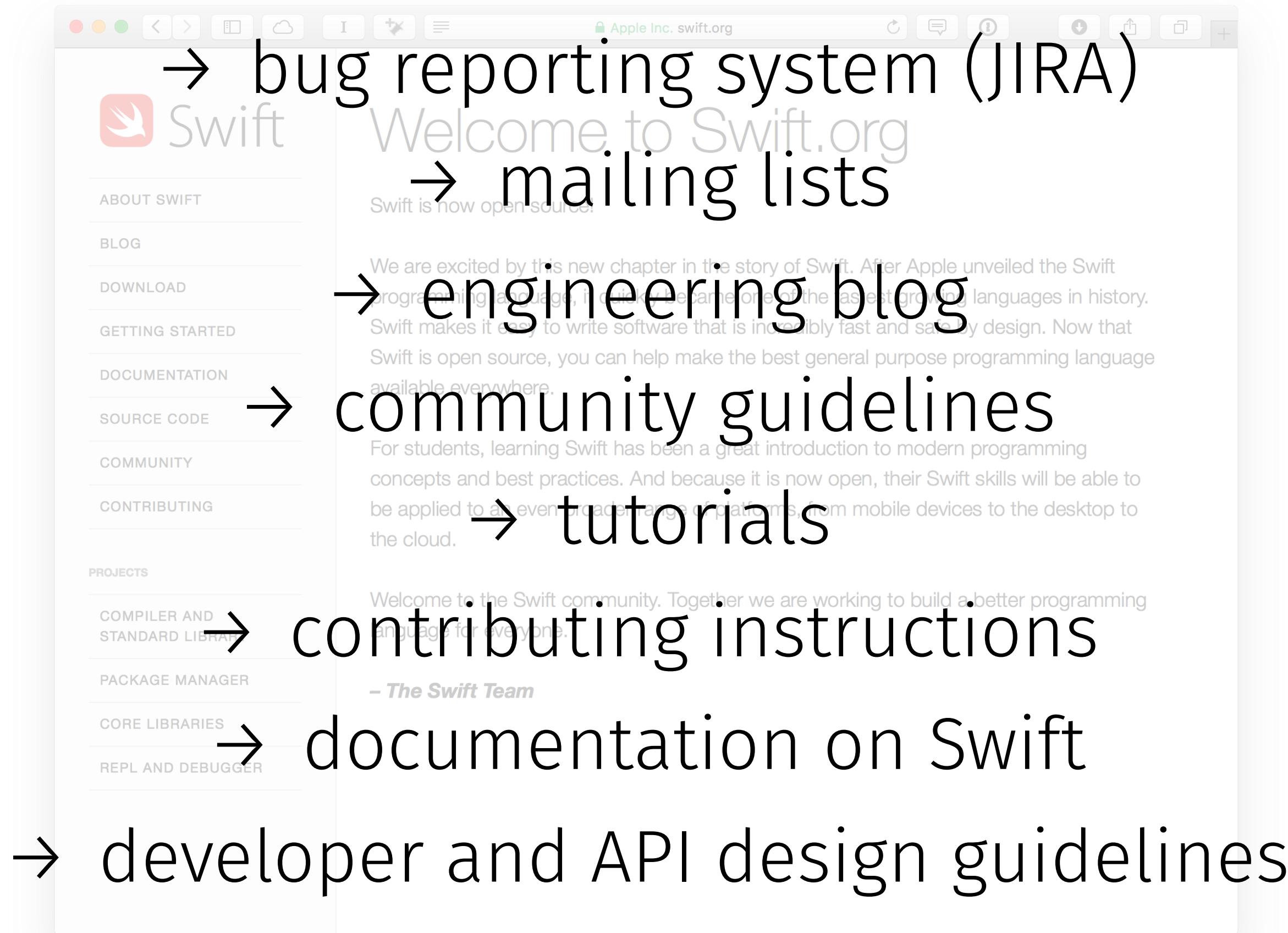
Swift is now open source!

We are excited by this new chapter in the story of Swift. After Apple unveiled the Swift programming language, it quickly became one of the fastest growing languages in history. Swift makes it easy to write software that is incredibly fast and safe by design. Now that Swift is open source, you can help make the best general purpose programming language available everywhere.

For students, learning Swift has been a great introduction to modern programming concepts and best practices. And because it is now open, their Swift skills will be able to be applied to an even broader range of platforms, from mobile devices to the desktop to the cloud.

Welcome to the Swift community. Together we are working to build a better programming language for everyone.

- The Swift Team



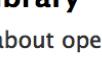
opensource.apple.com

Apple Open Source

Releases

 OS X ▼ 10.10 10.10.5 10.10.4 10.10.3 10.10.2 10.10.1 10.10 ▶ 10.9 ▶ 10.8 ▶ 10.7 ▶ 10.6 ▶ 10.5 ▶ 10.4 ▶ 10.3 ▶ 10.2 ▶ 10.1 ▶ 10.0	 Developer Tools ▼ 7.0 7.0 ▶ 6.0 ▶ 5.x ▶ 4.x ▶ 3.x ▶ 3.0/3.1 ▶ 2.x ▶ WWDC2004DP ▶ WWDC2003DP ▶ Dec2001	 iOS ▼ 9.0 9.0 ▶ 8.0 ▶ 7.0 ▶ 6.1 ▶ 6.0 ▶ 5.x ▶ 4.x ▶ 3.x ▶ 2.x ▶ SDK ▶ 1.x	 OS X Server ▼ 3.x 3.0.2 ▶ 2.x
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------

Open Source Reference Library
A collection of useful documents about open source from Apple Developer

 Security	 Porting	 Frameworks
 WebKit	 I/O Kit	 X11
 Daemons & Services	 Kernel	 Concurrency

Related Sites

Open Source Development  Documentation and resources for Bonjour, Java, UNIX, and WebKit.	Mac OS Forge  Open development of select OS X projects
Tools and Technologies  Why you'll love to develop on your Mac	Open Source in OS X  Learn about the 200+ open source projects that ship with OS X
Darwin Technologies  Beneath the easy-to-use interface of OS X is a rock-solid, UNIX foundation.	

Visit the Apple Store [online](#) (1-800-MY-APPLE), find a [retail](#) location or find a [reseller](#).

[Contact Us](#) | [Mailing Lists](#)

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So Open Source wie nur möglich!

GitHub, Inc. github.com/apple

Search GitHub

Pull requests Issues Gist

Apple Cupertino, CA https://developer.apple.com/opensource/

Repositories People 2

Filters Find a repository...

swift-corelibs-foundation C ★ 1,148 ⚡ 160
The Foundation Project, providing core utilities, internationalization, and OS independence
Updated 32 minutes ago

swift C++ ★ 18,940 ⚡ 2,150
The Swift Programming Language
Updated 3 hours ago

swift-lldb C++ ★ 230 ⚡ 30
This is the version of LLDB that supports the Swift programming language & REPL.
Updated 3 hours ago

swift-clang C++ ★ 270 ⚡ 34

People 2 >

- cwillmor Chris Willmore
- jpetitto John Petitto

GitHub, Inc. github.com/apple/swift

This repository Search Pull requests Issues Gist

apple / swift Watch 1,279 Unstar 18,940 Fork 2,150

Code Pull requests 51 Pulse Graphs

The Swift Programming Language

29,130 commits 4 branches 3 releases 170 contributors

Branch: master New pull request New file Find file SSH git@github.com:apple/swift.git Download ZIP

gribozavr Merge pull request #279 from radex/patch-1 ... Latest commit 814b3d2 4 hours ago

apinotes	Update README.md	a day ago
benchmark	[cmake] Do not attempt to include the perf test suite by default	a month ago
bindings/xml	Add 'throws' keyword to doc comments	5 months ago
cmake	Add comment to clarify the empty if block, as per gribozavr's review ...	2 days ago
docs	Fixed spelling errors.	9 hours ago
include	REVERTME: Temporarily make vars in refutable patterns a warning	7 hours ago
lib	Revert "Fix test flags"	4 hours ago
stdlib	Fix typo in UnavailableStringAPIs.swift.gyb	4 hours ago
test	REVERTME: Temporarily make vars in refutable patterns a warning	7 hours ago
tools	Reformat README	2 days ago
unittests	Added missing period	2 days ago
utils	Merge pull request #254 from eosrei/configparser-missing-option	7 hours ago
validation-test	Revert "Fix test flags"	4 hours ago
clang-format	Add a clang-format file	2 years ago

initial checkin, nothing much to see here.

Swift SVN r4

master → swift-2.2-SNAPSHOT-2015-12-10-a ... osx-passed

 mattt committed on Jul 18, 2010

1 parent 18844bc commit afc81c1855bf711315b8e5de02db138d3d487eeb

Showing 9 changed files with 194 additions and 0 deletions. 0 out of 9 files reviewed.

Unified Split

83 Makefile

... ... @@ -0,0 +1,83 @@
+===== Makefile -----*- Makefile -*-==#
+
+## This source file is part of the Swift.org open source project
+
+## Copyright (c) 2014 – 2015 Apple Inc. and the Swift project authors
+## Licensed under Apache License v2.0 with Runtime Library Exception
+
+## See http://swift.org/LICENSE.txt for license information
+## See http://swift.org/CONTRIBUTORS.txt for the list of Swift project authors
+
+##-----==#
+
+## If SWIFT_LEVEL is not set, then we are the top-level Makefile. Otherwise, we
+## are being included from a subdirectory makefile.
+
+ifndef SWIFT_LEVEL
+
+IS_TOP_LEVEL := 1
+SWIFT_LEVEL := .
+DIRS := lib tools # include docs

Swift Git

visualisierung

Apache 2.0 License

Swift-Compiler

- Parser/Lexer -> baut Abstract Syntax Tree (AST)
- Semantische Analyse -> Typinformationen
- Clang importer -> C und C++ APIs in Swift-APIs
- SIL -> Analyse & Optimierung von Swift-Code
- LLVM -> generiert Maschinencode

github.com/apple/swift

- 59.9 % C++
- 36.5 % Swift
- 0.9 % Python
- 0.6 % Objective-C
- 0.6 % Objective-C++

github.com/apple/swift

- 517 geschlossene PRs
- 78 offene PRs
- > 30.000 Commits
- 227 Contributors

github.com/apple/swift

- Compiler
- Swift Standardlib
- update- & install-scripts
- auch für Foundation und XCTest
- REPL
- lldb

PRs werden bereits akzeptiert 



Chris Lattner

@clattner_llvm



Following

Swift's comments and test suite are on track
to be one of the most correctly spelled and
best indented ones in the industry! 🐙🐱

RETWEETS

490

LIKES

890



8:56 AM - 5 Dec 2015

bugs.swift.org

bugs.swift.org:

- 174 To Done
- 8 In Progress
- 52 Done

Stdlib?

Foundation!

GitHub, Inc. github.com/apple/swift-corelibs-foundation

This repository Search Pull requests Issues Gist

apple / swift-corelibs-foundation Watch 146 Unstar 1,149 Fork 160

Code Pull requests 23 Pulse Graphs

The Foundation Project, providing core utilities, internationalization, and OS independence <http://swift.org>

88 commits 1 branch 2 releases 18 contributors

Branch: master New pull request New file Find file SSH git@github.com:apple/swift-core Download ZIP

parkera Merge pull request #33 from syoutsey/master ... Latest commit 0bfc8d2 17 hours ago

File	Description	Time Ago
CoreFoundation	Add an initial implementation of NSXMLParser backed by libxml2	2 days ago
Docs	Clarify GettingStarted.md	a day ago
Foundation.xcodeproj	Add an initial implementation of NSXMLParser backed by libxml2	2 days ago
Foundation.xcworkspace	Update path for swift-corelibs-xctest in workspace	11 days ago
Foundation	Merge pull request #33 from syoutsey/master	17 hours ago
TestFoundation	Add an initial implementation of NSXMLParser backed by libxml2	2 days ago
Tools/plutil	Initial implementation of Foundation.	21 days ago
bootstrap/x86_64-apple-darwin/usr/loc...	Initial implementation of Foundation.	21 days ago
closure	Update license on libclosure files	18 days ago
lib	Handle None cases for encoded paths to configure emission	2 days ago
uuid	Initial implementation of Foundation.	21 days ago
.gitignore	Allow configurations to be reconfigured for pulling in source list ch...	2 days ago
CONTRIBUTING.md	Fix link in CONTRIBUTING.md.	18 hours ago
LICENSE	Initial implementation of Foundation	21 days ago

***We will also drop the 'NS'
prefix from all Foundation
classes.***

– <https://github.com/apple/swift-corelibs-foundation>

NSObject, NSEnumerator, NSSwiftRuntime,
NSObjCRuntime, NSURL, NSURLSession, NSFormatter,
NSDateFormatter, NSPropertyList, NSCoder,
NSKeyedArchiver, NSJSONSerialization,
NSOrderedSet, NSIndexSet, NSIndexPath, NSArray,
NSDictionary, NSSet, NSCache, NSSortDescriptor,
NSPort, NSPortMessage, NSRunLoop, NSSstream,
NSTimer, NSRegularExpression, NSScanner,
NSTextCheckingResult, NSAttributedString,
NSCharacterSet, NSString, NSCFString, NSRange,
NSDecimal, NSDecimalNumber, NSGeometry,
NSAffineTransform, ...

... NSNumber, NSValue, NSUserDefaults, NSLocale,
NSFileHandle, NSFileManager, NSTask, NSBundle,
NSProcessInfo, NSThread, NSOperation, NSLock,
NSPathUtilities, NSCalendar, NSDate, NSTimeZone,
NSNotification, NSNotificationQueue, NSNull, NSData,
NSProgress, NSError, NSUUID,
NSPersonNameComponents, FoundationErrors

Status: [Link](#)

libdispatch!

XCTest!

XCTest

- Framework für Unit-Tests von Swift-Packages und -Apps
 - selbst in Swift geschrieben
- soll ebenfalls auf allen Swift-kompatiblen Plattformen laufen

Swift Evolution

GitHub, Inc. github.com/apple/swift-evolution

This repository Search Pull requests Issues Gist

apple / swift-evolution Watch 352 Unstar 1,565 Fork 138

Code Pull requests 5 Pulse Graphs

No description or website provided.

80 commits 1 branch 0 releases 22 contributors

Branch: master New pull request New file Find file SSH git@github.com:apple/swift-evol Download ZIP

DougGregor Merge pull request #31 from jtbandes/patch-2 ... Latest commit 7dc4dc4 13 hours ago

File	Description	Time
proposals	Fix typo: missing _ in dispatch_queue_t	14 hours ago
.gitignore	Initial content: Swift evolution process, proposal template, license	a month ago
0000-template.md	Fix proposal links	3 days ago
LICENSE.txt	Initial content: Swift evolution process, proposal template, license	a month ago
README.md	Ideas should start on the mailing list, not in pull requests.	a day ago
process.md	Fix core team link	3 days ago
schedule.md	Schedule the review of SE-0007 for December 7-10, 2015.	2 days ago

README.md

Swift Programming Language Evolution

Before you initiate a pull request, please read the process document. Ideas should be thoroughly discussed on the swift-evolution mailing list first.

The screenshot shows the GitHub repository page for `apple/swift-evolution`. The repository has 80 commits, 1 branch, 0 releases, and 22 contributors. The latest commit was made 13 hours ago. The repository contains files like `000-template.md`, `LICENSE.txt`, `README.md`, `process.md`, and `schedule.md`. A large watermark with the text "swift-evolution@swift.org" is overlaid across the middle of the page. Below the watermark, there is a section titled "Swift Programming Language Evolution" with a note about reading the process document and using the mailing list first.

No description or website provided.

80 commits 1 branch 0 releases 22 contributors

Branch: master New pull request New file Find file SSH git@github.com:apple/swift-evolution Download ZIP

DougGregor Merge pull request #31 from jtbandes/patch-2 ... Latest commit 7dc4dc4 13 hours ago

Fix typo: missing_in_dispatch_queue 14 hours ago

Initial commit. Contains Swift evolution process, proposal template, license, and README. 3 days ago

Ideas should start on the mailing list, not in pull requests. a month ago

Fix core team link a day ago

Schedule the review of SE-0007 for December 7-10, 2015. 3 days ago

2 days ago

README.md

Swift Programming Language Evolution

Before you initiate a pull request, please read the process document. Ideas should be thoroughly discussed on the swift-evolution mailing list first.

- Remove the `++` and `--` operators
- Removing `var` from Function Parameters and Pattern Matching
- Remove C-style for-loops with conditions and incrementers

SE-0005: Better Translation of Objective-C APIs Into Swift

```
let contentString = listItemView.stringValue.stringByTrimmingCharactersInSet(  
    NSCharacterSet.whitespaceAndNewlineCharacterSet())
```

```
let content = listItem.stringValue.trimming(.whitespaceAndNewlines)
```

Swift Package Manager

@mxcl & @mattt

Package.swift

apple/example-package-dealer

```
import PackageDescription

let package = Package(
    name: "Dealer",
    dependencies: [
        .Package(url: "https://github[...].git", majorVersion: 1),
    ]
)
```

```
> swift build  
> .build/debug/Dealer
```

Sources

- kein Verzeichnis
- Sources Verzeichnis
- andere Unterverzeichnisse

kein Verzeichnis

project/Package.swift

project/main.swift

project/foobar.swift

swift build baut ein project Modul

Sources Verzeichnis

project/Package.swift

project/Sources/main.swift

project/Sources/foobar.swift

swift build baut ein project Modul

Sources kann auch source, srcs oder src heißen

einzelne Unterverzeichnisse

project/Package.swift

project/mod1/main.swift

project/mod2/foo.swift

swift build baut zwei Module, mod1 und mod2

main.swift

Falls vorhanden baut SPM ein ausführbares Modul,
andernfalls eine Library.

Weitere Pläne

- Package Index
- Enforced Semantic Versioning
- Standardisiertes Licensing
- Support für andere Sprachen, Build Systeme
- andere Versionierungssysteme
 - Stable ABI

SPM & Cocoapods & Carthage?



Eloy Durán

@alloy



Following

Wrt @CocoaPods, we'll see what the Swift package manager does and if there's a continued need. We have no problem getting our lives back 😊

RETWEETS

35

LIKES

55

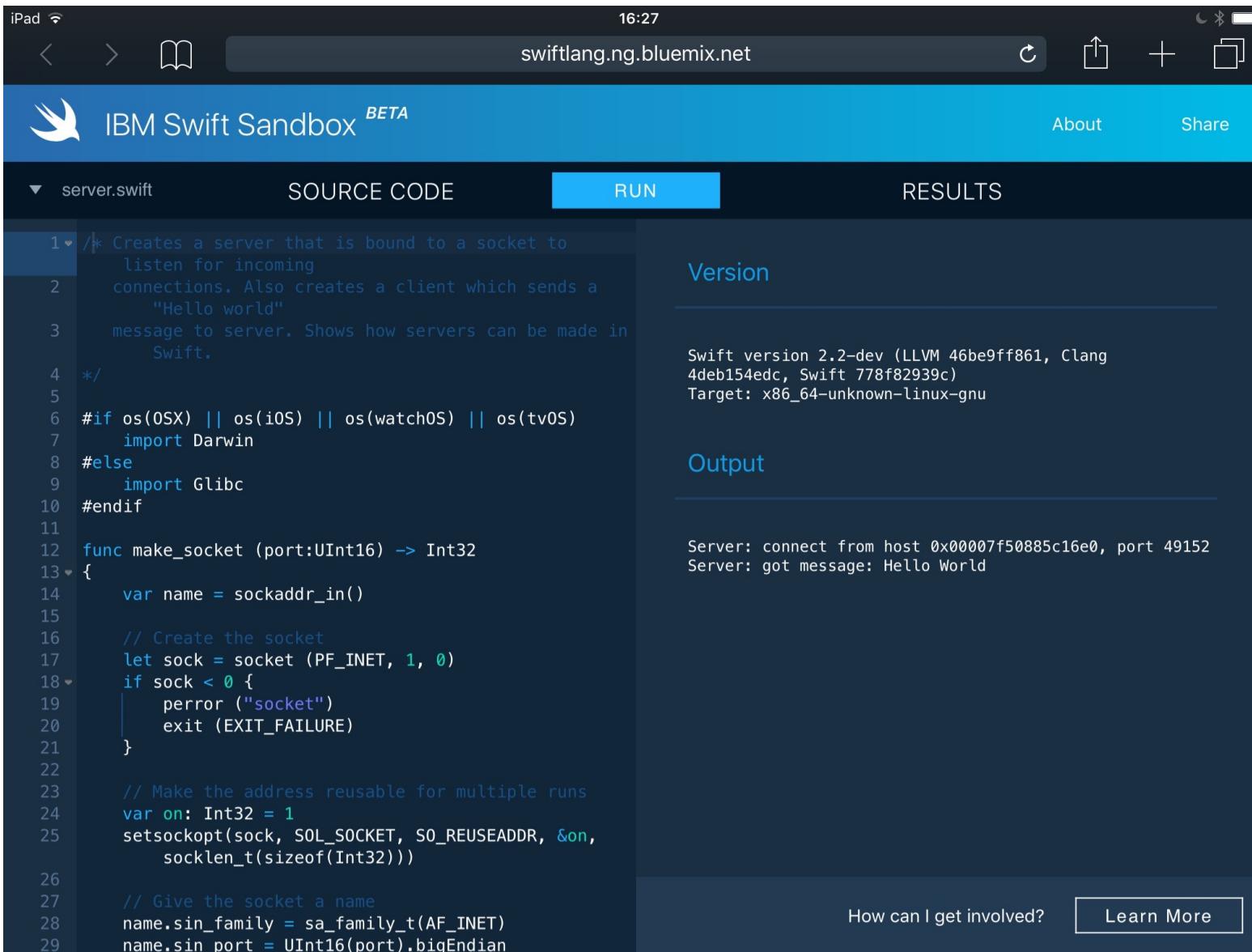


5:09 PM - 3 Dec 2015

Erste *Linux-ready* Projekte

- [kylef/Curassow](#) - HTTP Server
- [Zewo/Venice](#) - Concurrency
- [SwiftyJSON](#) - JSON framework
- [kylef/Commander](#) - CLI framework
- [kylef/Stencil](#) - templating framework
- [Zewo/Epoch](#) - HTTP Server

IBM Swift Sandbox



The screenshot shows the IBM Swift Sandbox interface running on an iPad. The top status bar indicates it's an iPad with signal, battery level at 16:27. The browser address bar shows "swiftlang.ng.ng.bluemix.net". The main page title is "IBM Swift Sandbox BETA". Below the title, there are tabs for "SOURCE CODE", "RUN", and "RESULTS". The "RUN" tab is currently selected. On the left, the "server.swift" file is displayed with code for creating a socket server. The "RESULTS" section contains two sections: "Version" and "Output". The "Version" section shows "Swift version 2.2-dev (LLVM 46be9ff861, Clang 4deb154edc, Swift 778f82939c) Target: x86_64-unknown-linux-gnu". The "Output" section shows the server output: "Server: connect from host 0x00007f50885c16e0, port 49152" and "Server: got message: Hello World". At the bottom right, there are buttons for "How can I get involved?" and "Learn More".

```
1  /* Creates a server that is bound to a socket to
2   * listen for incoming
3   * connections. Also creates a client which sends a
4   * "Hello world"
5   * message to server. Shows how servers can be made in
6   * Swift.
7 */
8
9 #if os(OSX) || os(iOS) || os(watchOS) || os(tvOS)
10 import Darwin
11 #else
12 import Glibc
13 #endif
14
15 func make_socket (port:UInt16) -> Int32
16 {
17     var name = sockaddr_in()
18
19     // Create the socket
20     let sock = socket (PF_INET, 1, 0)
21     if sock < 0 {
22         perror ("socket")
23         exit (EXIT_FAILURE)
24     }
25
26     // Make the address reusable for multiple runs
27     var on: Int32 = 1
28     setsockopt(sock, SOL_SOCKET, SO_REUSEADDR, &on,
29                 socklen_t(sizeof(Int32)))
30
31     // Give the socket a name
32     name.sin_family = sa_family_t(AF_INET)
33     name.sin_port = UInt16(port).bigEndian
```

```
#if os(Linux)
    import Glibc
#else
    import Darwin.C
#endif
import HTTP
import Epoch
import CHTTPParser
import CLibvenice

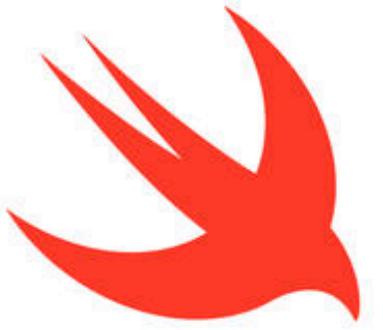
struct ServerResponder: ResponderType {
    func respond(request: Request) -> Response {
        let path = request.uri.path
        let text = path?.splitBy("/").last ?? ""
        return Response(status: .OK, body: text)
    }
}

let responder = ServerResponder()
let server = Server(port: 8080, responder: responder)
server.start()
```

Weitere Links

- Diskussion auf HN
- Craig Federighi Ars Technica Interview
- SPM Community Proposal

github/practicalswift/swift-compiler-crashes



The Swift Programming Language

Swift 2.1 Edition



(BY 4.0) - ePub

API Design Guidelines

⚠️ If you are having trouble describing your API's functionality in simple terms, **you may have designed the wrong API.**

