Swift Quickstart

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Abstract

This guide describes the steps needed to download, install, configure, and run the basic examples for Swift. If you are using a pre-installed version of Swift, you can skip directly to the configuration section.

1 Stable Releases vs. Development Releases

Stable releases of Swift have undergone more extensive testing than development releases. In general, they are more stable, have fewer bugs, and have been tested on a variety of systems.

The development version of Swift is aimed at developers and testers. The development code has the highest chance of containing buggy and untested code. If you need stability please use the latest stable release.

2 Downloading a Swift Distribution

There are two main ways of getting the Swift implementation: binary releases and the source repository.

2.1 Binary Releases

For the majority of users, downloading and installing binary releases is recommended. Since Swift is written in Java, the binary packages will run on all supported platforms with Java Runtime Environment 1.5 or greater. Binary releases can be obtained from the Swift downloads page.

Once downloaded, simply unpack the downloaded package (swift-<version>.tar.gz) into a directory of your choice:

```
tar -xzvf swift-<version>.tar.gz
```

This will create a swift-<version> directory containing the build.

2.2 Source Repository

The source code for Swift is available to developers who have an interest in contributing new features. To build Swift from source code, you will need Apache Ant and Java JDK. Once built, the dist/swift-svn directory will contain your build.

To download and build Swift 0.94, follow these instructions:

```
$ mkdir swift-0.94
$ cd swift-0.94
$ svn co https://svn.code.sf.net/p/cogkit/svn/branches/4.1.10/src/cog
$ cd cog/modules
$ svn co https://svn.ci.uchicago.edu/svn/vdl2/branches/release-0.94 swift
$ cd swift
$ ant redist
```

3 Setting your PATH

Once Swift is installed, it is useful to add the swift binary to your PATH environment variable. To do this, first determine where the Swift bin directory is located. If you installed Swift from a binary release, it will be in the swift-0.94/bin directory where you installed it. If you followed the instructions above for installing Swift from a source repository, it will be located in swift-0.94/cog/modules/swift/dist/swift-svn/bin.

Add the following line to the bottom of ~/.bashrc:

```
export PATH=$PATH:/full/path/to/swift
```

When you login, test this out by typing the command

```
$ which swift
```

This should point you to the path of the Swift binary.

4 Running Swift Examples

The Swift examples can be found in the examples directory in the Swift distribution. The examples are written in the SwiftScript language, and have .swift as a file extension.

Execution of a Swift workflow is done using the swift command, which takes the Swift workflow file name as an argument:

```
cd swift-0.94.1/examples/swift/tutorial
swift hello.swift
```

When you run this application, it should create a file called hello.txt. If this file gets created, you have successfully ran your first Swift script!

More documentation on how to run Swift can be found at http://www.ci.uchicago.edu/swift/docs/index.php.