



INFOWORLD TECH WATCH

By Paul Krill, Editor at Large, InfoWorld
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Languages on the rise: Julia, Go, Kotlin ... and assembly?

The technical computing language Julia lands in the top 50 for the first time, while Go, Kotlin, and assembly post surprise gains

Julia, a high-level dynamic language for technical programming, is gaining a foothold among developers.

For the first time, the language has cracked the top 50 in this month's Tiobe Index of language popularity, rising to 47th place. It has a still-small rating of 0.196 percent, but Tiobe, which tracks language popularity using a formula assessing searches on languages in popular search engines like Google, Bing, and Yahoo, sees its use growing.

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"The Julia programming language is meant for numerical computing. It combines functional programming paradigms with high speed," a report accompanying the index states. "In other words, readable and stable code that performs. Chances are high that Julia will gain even more popularity the next few months."

Tiobe Managing Director Paul Jansen said that Julia combines functional paradigms, readability, and speed. "In this way people can write code fast without sacrificing performance. There is no need to rewrite the prototype in another language." Jansen

believes that Julia could become a top 20 language, challenging Python.

Also in this month's index, JetBrains' Kotlin language for the JVM entered the top 100, ranked 99th, while Google's Go language, in 44th place a year ago, came in at 19th place, with a rating of 1.625 percent. Go has been helped in the index by a revision in Tiobe's calculation formula made two months ago, said Jansen.

Assembly language also continues its recent revival, coming in eighth place with a rating of 2.417 percent; it was in 11th place the same time last year. Tiobe credits its use in the internet of things for the boost. "I am really surprised about Assembly," Jansen said. "I thought that we all agreed that programming in Assembly is not efficient and error-prone, but apparently there are sufficient reasons to use it."

Also in this month's index, Java again was tops, with a rating of 18.236 percent, which was down from last month's rating of 19.01 percent. C, which also has been on a downward trajectory lately, again finished second with a 10.955 rating. Finishing from third to seventh were: C++ (6.657 percent), C# (5.493), Python (4.302), JavaScript (2.929), and PHP (2.847). Following Assembly in the top 10 were Visual Basic .Net (2.343) and Perl (2.333).

In this month's PyPL Popularity of Programming Language index, which assesses searches on language tutorials in Google, Java was first with a 23.6 percent share, followed by Python (13.3), PHP (10), C# (8.6), JavaScript (7.6), C++ (7), C (6.8), Objective-C (4.5), R (3.3), and Swift (3.1). These languages held the same places in last month's PyPL index.

Paul Krill is an editor at large at InfoWorld, whose coverage focuses on application development.

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