

## index | TIOBE - The Software Quality Company



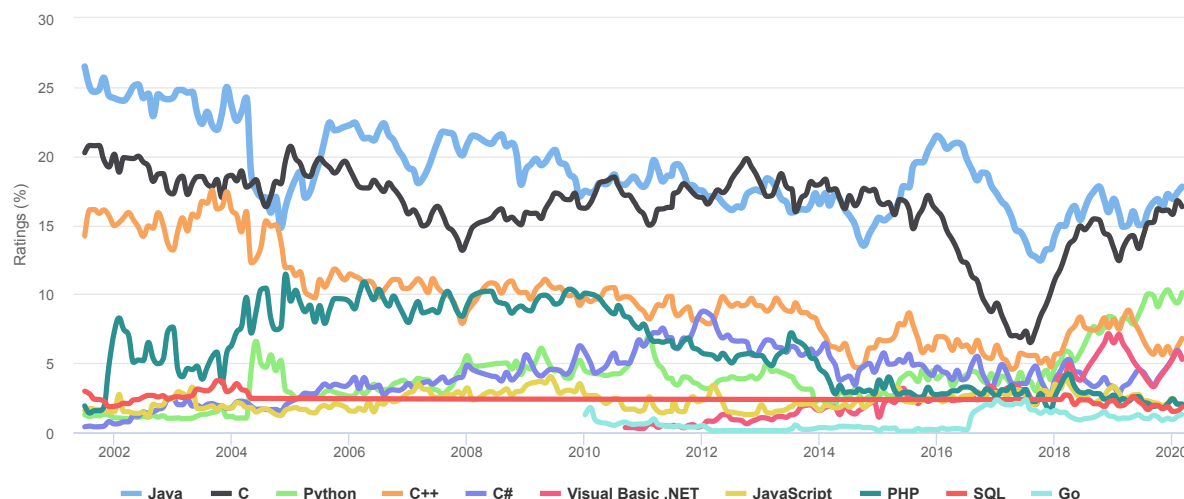
### TIOBE Index for March 2020

#### March Headline: Delphi is about to fall out of the TIOBE index top 20

The end seems to be near for the well-beloved Delphi language. Delphi has been in the top 20 since the beginning of the TIOBE index (started in June 2001). In the early 2000s it was one of the most popular languages and IDEs. Borland Delphi 7 of 2002 was used by more Delphi developers than any other single version of Delphi. It was a complete environment to create Windows applications. After that Delphi got in to troubles: the port to Linux was not successful, there were some buggy releases and non-commercial IDEs with similar features started to conquer the market. In some countries, such as Brazil, Delphi remained very popular for a long time.

The TIOBE Programming Community index is an indicator of the popularity of programming languages. The index is updated once a month. The ratings are based on the number of skilled engineers world-wide, courses and third party vendors. Popular search engines such as Google, Bing, Yahoo!, Wikipedia, Amazon, YouTube and Baidu are used to calculate the ratings. It is important to note that the TIOBE index is not about the *best* programming language or the language in which *most lines of code* have been written.

The index can be used to check whether your programming skills are still up to date or to make a strategic decision about what programming language should be adopted when starting to build a new software system. The definition of the TIOBE index can be found [here](#).



TIOBE Programming Community IndexSource: [www.tiobe.com](http://www.tiobe.com)

### Other programming languages

The complete top 50 of programming languages is listed below. This overview is published unofficially, because it could be the case that we missed a language. If you have the impression there is a programming language lacking, please notify us at [tpci@tiobe.com](mailto:tpci@tiobe.com). Please also check the [overview of all programming languages](#) that we monitor.

#### Position Programming Language Ratings

21	SAS	0.70%
22	Scratch	0.69%
23	D	0.68%
24	Dart	0.60%
25	Transact-SQL	0.53%
26	COBOL	0.48%
27	ABAP	0.45%
28	Scala	0.42%
29	Lisp	0.37%

**Position Programming Language Ratings**

30	Rust	0.37%
31	Kotlin	0.35%
32	F#	0.32%
33	Fortran	0.29%
34	Lua	0.28%
35	PowerShell	0.28%
36	Groovy	0.25%
37	Ada	0.23%
38	Logo	0.23%
39	Haskell	0.22%
40	ML	0.20%
41	LabVIEW	0.20%
42	VBScript	0.20%
43	TypeScript	0.19%
44	Apex	0.19%
45	Prolog	0.18%
46	CL (OS/400)	0.18%
47	Verilog	0.18%
48	Scheme	0.17%
49	Julia	0.17%
50	S	0.17%

## The Next 50 Programming Languages

The following list of languages denotes #51 to #100. Since the differences are relatively small, the programming languages are only listed (in alphabetical order).

- (Visual) FoxPro, ABC, ActionScript, Alice, Awk, Bash, bc, Bourne shell, C shell, Caml, Clojure, CoffeeScript, Crystal, cT, Elixir, Emacs Lisp, Erlang, Falcon, Hack, Icon, Inform, Io, J, JScript, Korn shell, Ladder Logic, LiveCode, Maple, Mercury, Modula-2, MQL4, NATURAL, Nim, OpenCL, OpenEdge ABL, Oz, PL/I, PostScript, Programming Without Coding Technology, Q, Red, Ring, RPG, Simulink, Smalltalk, SPARK, Tcl, Vala/Genie, VHDL, Whitespace

## This Month's Changes in the Index

This month the following changes have been made to the definition of the index:

- Douglas Wittnebert found a typo in formula of TIOBE index calculation. This has been fixed.
- Some time ago Mantvydas Lopeta suggested to rename Perl 6 to its official name Raku. This has been done. Raku is now at position #115 of the TIOBE index.
- Xusinboy Bekchanov proposed to add FreeBasic to the TIOBE index. FreeBasic meets all criteria and thus has been added. It debuts at position #173.
- Pramod Kukhshal asked me why the TIOBE index rankings contain 3 digits after the decimal point. This is indeed a bit too much. So we switched to 2 digits as of this month.
- There are lots of mails that still need to be processed. As soon as there is more time available your mail will be answered. Please be patient.

## Very Long Term History

To see the bigger picture, please find below the positions of the top 10 programming languages of many years back. Please note that these are *average* positions for a period of 12 months.

**Programming Language 2020 2015 2010 2005 2000 1995 1990 1985**

Java	1	2	1	2	3	-	-	-
C	2	1	2	1	1	2	1	1
Python	3	7	6	6	22	21	-	-
C++	4	4	4	3	2	1	2	12
C#	5	5	5	8	9	-	-	-
Visual Basic .NET	6	10	-	-	-	-	-	-
JavaScript	7	8	8	9	6	-	-	-
PHP	8	6	3	4	25	-	-	-
SQL	9	-	-	97	-	-	-	-
Objective-C	10	3	20	37	-	-	-	-
Fortran	30	30	22	14	16	4	3	11
Lisp	31	19	15	13	8	5	5	2

**Programming Language 2020 2015 2010 2005 2000 1995 1990 1985**

Ada	36	29	25	15	15	6	6	3
Pascal	232	15	13	64	13	3	16	5

## Programming Language Hall of Fame

The hall of fame listing all "Programming Language of the Year" award winners is shown below. The award is given to the programming language that has the highest rise in ratings in a year.

## Bugs & Change Requests

This is the top 5 of most requested changes and bugs. If you have any suggestions how to improve the index don't hesitate to send an e-mail to [tpci@tiobe.com](mailto:tpci@tiobe.com).

1. Apart from "<language> programming", also other queries such as "programming with <language>", "<language> development" and "<language> coding" should be tried out.
2. Add queries for other natural languages (apart from English). The idea is to start with the Chinese search engine Baidu. This has been implemented partially and will be completed the next few months.
3. Add a list of all search term requests that have been rejected. This is to minimize the number of recurring mails about Rails, JQuery, JSP, etc.
4. Start a TIOBE index for databases, software configuration management systems and application frameworks.
5. Some search engines allow to query pages that have been added last year. The TIOBE index should only track those recently added pages.

## Frequently Asked Questions (FAQ)

- *Q: Am I allowed to show the TIOBE index in my weblog/presentation/publication?*

A: Yes, the only condition is to refer to its original source "www.tiobe.com".

- *Q: How may I nominate a new language to be added to the TIOBE index?*

A: If a language meets the criteria of being listed (i.e. it is Turing complete and has an own Wikipedia entry that indicates that it concerns a programming language) and it is sufficiently popular (more than 5,000 hits for "<language> programming" for Google), then please write an e-mail to [tpci@tiobe.com](mailto:tpci@tiobe.com).

- *Q: I would like to have the complete data set of the TIOBE index. Is this possible?*

A: We spent a lot of effort to obtain all the data and keep the TIOBE index up to date. In order to compensate a bit for this, we ask a fee of 5,000 US\$ for the complete data set. The data set runs from June 2001 till today. It started with 25 languages back in 2001, and now measures more than 150 languages once a month. The data are available in comma separated format. Please contact [sales@tiobe.com](mailto:sales@tiobe.com) for more information.

- *Q: Why is the maximum taken to calculate the ranking for a grouping, why not the sum?*

A: Well, you can do it either way and both are wrong. If you take the sum, then you get the intersection twice. If you take the max, then you miss the difference. Which one to choose? Suppose somebody comes up with a new search term that is 10% of the original. If you take the max, nothing changes. If you take the sum then the ratings will rise 10%. So taking the sum will be an incentive for some to come up with all kinds of obscure terms for a language. That's why we decided to take the max.

The proper way to solve this is of course to take the sum and subtract the intersection. This will give rise to an explosion of extra queries that must be performed. Suppose a language has a grouping of 15 terms, then you have to perform 32,768 queries (all combinations of intersections). So this seems not possible either... If somebody has a solution for this, please let us know.

- *Q: What happened to Java in April 2004? Did you change your methodology?*

A: No, we did not change our methodology at that time. Google changed its methodology. They performed a general sweep action to get rid of all kinds of web sites that had been pushed up. As a consequence, there was a huge drop for languages such as Java and C++. In order to minimize such fluctuations in the future, we added two more search engines (MSN and Yahoo) a few months after this incident.