

Computer Language Shootout

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Bruce Arnold

HELLO WORLD IN SEVERAL DIFFERENT COMPUTER LANGUAGES

(Excerpts from Wikipedia)

http://en.wikibooks.org/wiki/Computer_Programming/Hello_world
(220 Languages shown)

ANSI C

```
#include <stdio.h>

int main(void) {
    printf("Hello, World!\n");






    return 0; }
```

ASSEMBLER x86 (DOS, MASM)

```
.MODEL Small
.STACK 100h
.DATA
    db msg 'Hello, world!$'
.CODE
start:
    mov ah, 09h
    lea dx, msg ; or mov dx, offset msg
    int 21h
    mov ax, 4C00h
    int 21h
end start
```

Types: www, mobile, workstation, and imbedded.

* IEEE Spectrum magazine 2015 survey.

Language Rank	Types	Spectrum Ranking
1. Java	  	100.0
2. C	  	99.9
3. C++	  	99.4
4. Python	 	96.5
5. C#	  	91.3
6. R		84.8
7. PHP		84.5
8. JavaScript	 	83.0
9. Ruby	 	76.2
10. Matlab		72.4

Mainframe: IBM z/Architecture series using BAL

HELLO	CSECT	The name of this program is 'HELLO'
	USING *,12	Tell assembler ab't used registers
	SAVE (14,12)	Save registers
	LR 12,15	Use Register 12 for this program
	WTO 'Hello, world!'	Write To Operator
	RETURN (14,12)	Return to calling party
	END HELLO	This is the end of the program

GW-BASIC

```
10 PRINT "Hello, World!"
20 END
```

B

This is the first known Hello, world! program ever written:[\[1\]](#)

```
main( ) {
    extrn a, b, c;
    putchar(a); putchar(b); putchar(c); putchar('!\n'); }
a 'hell';
b 'o, w';
c 'orld';
```

Visual Basic .NET

```
Module HelloWorldApp
    Sub Main()
        System.Console.WriteLine("Hello, world!")
    End Sub
End Module
```

Batch (MS-DOS)

```
@echo Hello World!
```

or

```
@echo off
set hellostring=Hello World!
echo %hellostring%
```

C

```
#include <stdio.h>

int main(void)
{
    printf("Hello, world!\n");
    return 0;
}
```

COBOL

```
IDENTIFICATION DIVISION.
PROGRAM-ID. HELLO-WORLD.
PROCEDURE DIVISION.
    DISPLAY "Hello, world!"
    STOP RUN.
```

The above is a very abbreviated and condensed version, which omits the author name and source and destination computer types.

C++

```
#include <iostream>

using namespace std;

int main(){
    cout << "Hello, World!" << endl;
    return 0;
}
```

C++/CLI

```
int main(){
    System::Console::WriteLine("Hello, world!");
    return 0;
}
```

C++, Managed (.NET)

```
#using <mscorlib.dll>

using namespace System;

int wmain()
{
    Console::WriteLine("Hello, world!");
    return 0;
}
```

C#

```
using System;

internal static class HelloWorld
{
    private static void Main()
    {
        Console.WriteLine("Hello, world!");
    }
}
```

Forth

```
: HELLO  ( -- )  ." Hello, world!" CR ;
HELLO
```

Fortran 77

```
00      program hello
         write(*,*) 'Hello World!'
         stop
         end
```

Java

```
public class HelloWorld {
    public static void main(String[] args) {
        System.out.println("Hello, world!");
    }
}
```

JavaScript

JavaScript does not have native (built in) input or output routines. Instead it relies on the facilities provided by its host environment.

Using a standard Web browser's document object

```
document.write('Hello, World!');
```

Objective C

Procedural C Version

```
#import <stdio.h>

int main (int argc, const char *argv[])
{
    printf ("Hello, world!\n");
    return 0;
}
```

Object-Oriented C Version

```
#import <stdio.h>
#import <objc/Object.h>

@interface Hello : Object
{
}
- hello;
@end

@implementation Hello
- hello
{
    printf("Hello, world!\n");
}
@end

int main(void)
{
    id obj;
    obj = [Hello new];
    [obj hello];
    [obj free];    return 0;}
}
```

Pascal

```
program helloworld;
begin
    writeln('Hello, world!')
end.
```

PHP

```
<?php
    echo 'Hello, world!';
?>
```

or use short-hand echoing, syntaxed as such:

```
<? echo "Hello, world!"?>
```

this will also work:

```
<?= "Hello, world!" ?>
```

SQL

```
CREATE TABLE message (text CHAR(15));
INSERT INTO message (text) VALUES ('Hello, world!');
SELECT text FROM message;
DROP TABLE message;
```

or (e.g. MySQL or PostgreSQL dialect)

```
SELECT 'Hello, world!';
```

XHTML 1.1

(Using UTF-8 character set.)

```
<?xml version="1.0" encoding="utf-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
"http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>Hello, world!</title>
  </head>
  <body>
    <p>Hello, world!</p>
  </body>
</html>
```

HTML

```
<html>

  <head>
    <title>Hello, world!</title>
  </head>

  <body>
    Hello, world!
  </body>

</html>
```