

JScript

JScript is Microsoft's dialect of the [ECMAScript](#) standard^[2] that is used in [Microsoft's Internet Explorer](#).

JScript is implemented as an [Active Scripting](#) engine. This means that it can be "plugged in" to [OLE Automation](#) applications that support Active Scripting, such as [Internet Explorer](#), [Active Server Pages](#), and [Windows Script Host](#).^[3] It also means such applications can use multiple Active Scripting languages, e.g., JScript, [VBScript](#) or [PerlScript](#).

JScript was first supported in the [Internet Explorer 3.0](#) browser released in August 1996. Its most recent version is JScript 9.0, included in Internet Explorer 9.

JScript 10.0^[4] is a separate dialect, also known as JScript .NET, which adds several new features from the abandoned fourth edition of the ECMAScript standard. It must be compiled for [.NET Framework](#) version 2 or version 4, but static type annotations are optional.

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JScript



Developer	Microsoft
First appeared	1996
Stable release	9.0 / March 2011
Typing discipline	Dynamic , weak , duck
OS	Microsoft Windows
Filename extensions	.js , .jse , .wsf , .wsc (.htm , .html , .hta , .asp) ^[1]
Website	msdn.microsoft.com/library/hbxc2t98.aspx (http://msdn.microsoft.com/library/hbxc2t98.aspx)
Major implementations	
Active Scripting , JScript .NET	

Comparison to JavaScript

As explained by [Douglas Crockford](#) in his talk titled *The JavaScript Programming Language* on [YUI Theater](#),

[Microsoft] did not want to deal with [Sun Microsystems](#) about the trademark issue, and so they called their implementation JScript. A lot of people think that JScript and JavaScript are different but similar languages. That's not the case. They are just different names for the same language, and the reason the names are different was to get around trademark issues.^[5]

However, JScript supports conditional compilation, which allows a programmer to selectively execute code within block comments. This is an extension to the ECMAScript standard that is not supported in other JavaScript implementations, thus making the above statement not completely true, although conditional compilation is no longer supported in Internet Explorer 11 Standards mode.

Other internal implementation differences between JavaScript and JScript, at some point in time, are noted on the Microsoft Developer Network (MSDN).^[6] Although, the default type value for the script element in Internet Explorer is JavaScript, while JScript was its alias.^[7] In an apparent transition from JScript to JavaScript, online, the Microsoft Edge Developer Guide refers to the Mozilla MDN web reference library as its definitive documentation.^[8] As of October 2017, Microsoft MSDN pages for scripting in Internet Explorer are being redirected there as well.^[9] This information may not include JScript specific objects, such as Enumerator, which are listed in the JavaScript language reference on Microsoft Docs.^[10] Those provide additional features that are not included in the ECMA Standards, whether they are supported in the Edge browser or its predecessor.^[11]

Versions

JScript (COM Classic)^[12]

The original JScript is an Active Scripting engine. Like other Active Scripting languages, it is built on the COM/OLE Automation platform and provides scripting capabilities to host applications.

This is the version used when hosting JScript inside a Web page displayed by Internet Explorer, in an HTML application before IE9, as well as in classic ASP, Windows Script Host scripts and other Automation environments.

JScript is sometimes referred to as "classic JScript" or "Active Scripting JScript" to differentiate it from newer .NET-based versions.

Some versions of JScript are available for multiple versions of Internet Explorer and Windows. For example, JScript 5.7 was introduced with Internet Explorer 7.0 and is also installed for Internet Explorer 6.0 with Windows XP Service Pack 3, while JScript 5.8 was introduced with Internet Explorer 8.0 and is also installed with Internet Explorer 6.0 on Windows Mobile 6.5.

Microsoft's implementation of ECMAScript 5th Edition in Windows 8 Consumer Preview is called *JavaScript* and the corresponding Visual Studio 11 Express Beta includes a “completely new”, full-featured JavaScript editor with IntelliSense enhancements for HTML5 and ECMAScript 5 syntax, “VSDOC” annotations for multiple overloads, simplified DOM configuration, brace matching, collapsible outlining and “go to definition”.^[13]

Version	Date	Introduced with ^[14]	Based on ^[note 1]	Similar JavaScript version
1.0	Aug 1996	<u>Internet Explorer 3.0</u>	Netscape JavaScript	1.0
2.0	Jan 1997	<u>Windows IIS 3.0</u>	Netscape JavaScript	1.1
3.0	Oct 1997	<u>Internet Explorer 4.0</u>	ECMA-262 1st edition ^[note 2]	1.3
4.0		<u>Visual Studio 6.0 (as part of Visual InterDev)</u>	ECMA-262 1st edition	1.3
5.0	Mar 1999	<u>Internet Explorer 5.0</u>	ECMA-262 2nd edition	1.4
5.1		<u>Internet Explorer 5.01</u>	ECMA-262 2nd edition	1.4
5.5	Jul 2000	<u>Internet Explorer 5.5 & Windows CE 4.2</u>	ECMA-262 3rd edition	1.5
5.6	Oct 2001	<u>Internet Explorer 6.0 & Windows CE 5.0</u>	ECMA-262 3rd edition	1.5
5.7	Nov 2006	<u>Internet Explorer 7.0</u>	ECMA-262 3rd edition + ECMA-327 (ES-CP) ^[note 3]	1.5
5.8	Mar 2009	<u>Internet Explorer 8.0 & Internet Explorer Mobile 6.0</u>	ECMA-262 3rd edition + ECMA-327 (ES-CP) + <u>JSON (RFC 4627)</u> ³	1.5

JScript is also available on Windows CE (included in Windows Mobile, optional in Windows Embedded CE). The Windows CE version lacks Active Debugging.

Managed JScript

Managed JScript is an implementation of JScript for the Dynamic Language Runtime, it is part of Microsoft's dynamic languages for .NET along with IronRuby, IronPython, and Dynamic Visual Basic. Unlike JScript .NET which is less dynamic than the original JScript but provides CLS compatibility, Managed JScript is designed on top of the DLR and provides the features needed for scripting scenarios.

While it is primarily designed to be used within Silverlight and ASP.NET at this time, it can also easily be embedded within any .NET application.

(Source: JScript Blog (<http://blogs.msdn.com/jscript/archive/2007/05/04/managed-jscript-announced.aspx>), Jim Hugunin's Thinking Dynamic blog (<http://blogs.msdn.com/hugunin/archive/2007/04/30/a-dynamic-language-runtime-dlr.aspx>), Source: Blog of Jitu (<http://blogs.msdn.com/jitu/archive/2007/05/04/introducing-managed-jscript.aspx>))

Two builds of Managed JScript exists, one for the Desktop CLR and one for the CoreCLR (Microsoft Silverlight)

Version	Date	Introduced with	Based on	Platform
1.0.0.0	2007	<u>ASP.NET Futures</u> (July 2007 preview)	ECMA-262 3 rd edition	Desktop <u>CLR</u> 2.0
1.1.20625.0	2007	<u>Microsoft Silverlight 1.1 Alpha</u> (Sep 2007 refresh)	ECMA-262 3 rd edition	<u>CoreCLR</u> 1.1

Managed JScript is not supported in the .NET Compact Framework.

(Source: files versions of Microsoft.JScript.Runtime.dll in ASP.NET Futures and Silverlight 1.1 folders)

JScript "Chakra" (JsRT)^[17]

JScript "Chakra" is based on the JScript (COM classic) version, but it has been redesigned to improve performance in Internet Explorer 9 at the expense of proper Active Scripting engine compatibility. It requires a specific Microsoft JavaScript Hosting (JsRT) API for proper use. Therefore, it is installed side by side with JScript 5.x, and is only used by Internet Explorer 9 and later as well as JsRT hosts, while other Active Scripting hosts keep using the 5.x version when requesting the JScript engine.

Version	Date	Introduced with ^[18]	Based on ^[19]	Similar JavaScript version
Chakra 9.0	Mar 2011	<u>Internet Explorer 9.0</u>	ECMA-262 5th edition	1.8.1
Chakra 10.0	Sep 2012	<u>Internet Explorer 10.0</u>	ECMA-262 5.1 edition	
Chakra 11.0	Oct 2013	<u>Internet Explorer 11.0</u>	ECMA-262 6th edition	
Chakra Edge	Jul 2015	<u>Edge / Windows 10</u>	ECMA-262 5.1 to 9 (2018) edition (kept up to date without engine versioning)	

There are two versions of the Chakra engine, the original one used by Internet Explorer 9 and later, and sometimes referred to as "jscript9.dll" or "legacy Chakra engine", and a second one used by Microsoft Edge browser and sometimes referred to as "new Chakra engine", "Edge engine" or "Chakra.dll". Both Chakra versions can be used by other applications using the JsRT API and can be installed side by side.^[20]

See separate page about new Chakra (Edge) engine.

JScript .NET (CLI)

JScript .NET is a Microsoft .NET implementation of JScript. It is a CLI language and thus inherits very powerful features, but lacks many features of the original JScript language, making it inappropriate for many scripting scenarios. JScript .NET can be used for ASP.NET pages and for complete .NET applications, but the lack of support for this language in Microsoft Visual Studio places it more as an upgrade path for classic ASP using classic JScript than as a new first-class language.

Version	Platform	Date	Introduced with	Based on
7.0	Desktop <u>CLR</u> 1.0	2002-01-05	<u>Microsoft .NET Framework</u> 1.0	ECMA-262 3rd edition ^[note 4]
7.1	Desktop <u>CLR</u> 1.1	2003-04-01	<u>Microsoft .NET Framework</u> 1.1	ECMA-262 3rd edition ^[note 4]
8.0	Desktop <u>CLR</u> 2.0	2005-11-07	<u>Microsoft .NET Framework</u> 2.0	ECMA-262 3rd edition ^[note 4]
10.0	Desktop <u>CLR</u> 4.0	2010-08-03	<u>Microsoft .NET Framework</u> 4.0	ECMA-262 3rd edition ^[note 4]

JScript .NET is not supported in the .NET Compact Framework.

Note: JScript .NET versions are not related to classic JScript versions. JScript .NET is a separate product. Even though JScript .NET is not supported within the Visual Studio IDE, its versions are in sync with other .NET languages versions (C#, VB.NET, VC++) that follow their corresponding Visual Studio versions.

.NET Framework 3.0 and 3.5 are built on top of 2.0 and do not include the newer JScript.NET release (version 10.0 for .NET Framework 4.0).

(Source: file version of jsc.exe JScript.NET compiler and Microsoft.JScript.dll installed with .NET Framework)

See also

- JScript.Encode
- Windows Script File
- Windows Script Host
- WinJS

Notes

1. JScript supports various features not specified in the ECMA standard,^[15] as does JavaScript.
2. Microsoft said JScript 3.0 was "the first scripting language to fully conform to the ECMA-262 standard",^[16]
3. JScript 5.7 includes an implementation of the ECMAScript Compact Profile (ECMA-327) which turns off features not required by the ES-CP when using the "JScript.Compact" ProgID.
4. JScript .NET is "being developed in conjunction with ECMAScript Edition 4",^[21]

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External links

- JScript documentation in the MSDN Library (<http://msdn2.microsoft.com/en-us/library/hbxc2t98.aspx>)
- JScript 5.7 Release Notes (<http://download.microsoft.com/download/f/f/e/ffea3abf-b55f-4924-b5a5-bde0805ad67c/Windows%20Script%20Release%20Notes.rtf>)
- JScript .NET documentation in the MSDN Library ([http://msdn2.microsoft.com/en-us/library/72bd815a\(vs.71\).aspx](http://msdn2.microsoft.com/en-us/library/72bd815a(vs.71).aspx))
- JScript blog (<http://blogs.msdn.com/jscript>)
- JavaScript – JScript – ECMAScript version history (<http://www.webmasterworld.com/forum91/68.htm>)
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- JScript Features – Non-ECMA ([http://msdn.microsoft.com/en-us/library/894hfyb4\(v=vs.100\).aspx](http://msdn.microsoft.com/en-us/library/894hfyb4(v=vs.100).aspx))
- New features in JavaScript (Microsoft Docs) (<http://docs.microsoft.com/en-us/scripting/javascript/what-s-new-in-javascript>)

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