

Languages for Web Development

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The architectural benefits provided by a web site design is significantly affected by the type of language on which it is based. Like successful traditional client/server development tools, successful web development tools must provide the flexibility and extensibility required to build enterprise-scale applications. Languages that have emerged for web applications include Java, Visual Basic (or a licensed variant), C++, Smalltalk, and JavaScript. Additionally, client/server vendors have continued to use their proprietary scripting languages as the language underlying their web application development.

Feature	Java	Visual Basic	C++	Smalltalk	Script(VB, Java)
Secure	Yes	No	No	No	No
Platform independent	Yes	No	No	No	Dependent on the browser
Object oriented	Yes	No	Yes	Yes	Pseudo at best
Automatic garbage collection	Yes	No	No	Yes	No
Built-in threads	Yes	No	No	No	Yes

The ideal web language should be one that was made for the Internet. It should be portable across the many platforms that support web browsers. In fact, it should be browser independent. Furthermore, it must be secure, especially for applications that run over the Internet. It must be an object-oriented programming language, so that developers can re-use existing code. It must also be web-centric.

Java has emerged as the likely winner in the succession of languages on the web. It builds upon the benefits of existing OOP languages like C++, removes unnecessary complexity like pointers and memory allocation, and introduces security and portability features that are important for the web. Unfortunately, many of the underlying class libraries and enterprise frameworks for enabling distributed objects are not yet defined or built for Java. In the meantime, many Fortune 1000 firms are implementing distributed object frameworks using VisualAge Smalltalk from IBM and Distributed Smalltalk 5.6 from Parcplace systems.

About the author:

James Hobart is an internationally recognized user interface design consultant based in California, USA. He specializes in the design and development of large-scale, high-volume client/server and web applications. He is an expert in GUI design for transaction processing systems and strategies for migration to thin-client graphical user interfaces. He can be reached at jimh@classicsys.com

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