What Is So Hot About Java?

By Ira Smith

Editor's Note: This customer perspective on Java appeared on our BBx® e-mail list, a BASIS-sponsored public forum for discussion of BBx issues. It followed some heated questioning as to why anyone would choose to develop in Java, which began to stream in shortly after we announced our BBj™ strategy on the list. Ira Smith's comments are purely his own and were intended to educate, not to sell or endorse BASIS products. But he outlined so many of the benefits of Java so eloquently, we decided to reprint his comments for those readers who may not subscribe to the list. What follows is Ira's message, edited for punctuation, grammar and format considerations. Editor's insertions and deletions are indicated with brackets.

Subject: Re: Why Java?

Well, I'll try to shed some light on what I have been researching and studying.

BASIS is not the first compiler/interpreter company to do this move to Java. know of one company that has written a compiler/interpreter that lets a programmer write in Visual Basic, and it takes your Visual Basic code and compiles it to both Java source [code] and Java bytecode. I'm sure there are other compiler companies that have done the same thing or are thinking about it. I'd say one more name specifically but can't spill the details of that just yet. But I know it's been done for a fact. While I don't know the specifics of what BASIS intends, I'd imagine that it would have something where you write standard BBx code and the new interpreter/compiler would convert that code to Java source [code] that would then be compiled to Java bytecode.

Why would someone want to do this? Well, here is what I've found thus far.

1. Java allows you to do Windows programming for any operating system that a Java Virtual Machine (interpreter) is available. Yes, you can do Windows applications for all flavors of UNIX, including Linux, Novell, Microsoft Windows, and even the AS400.

2. Going with applications written in Java aids in getting away from the quite troublesome DLL conflicts you find in the Windows world.

3. Java is growing in popularity and more programmers are converting to it. So in the future, it will be harder to find programmers who specialize exclusively in a language like BBx. One of the issues I hear a lot is that there are not many books on the BBx language, and the ones that are out there are considerably costly. Take a look at www.amazon.com sometime when doing a search on Java; tons of books and reference material.

4. For developers who want true cross-platform ability, Java does this for you. You write it once and run it on any operating system that you wish. If you are a software developer, this is important because the market for your software is now wide open, not limiting you to a segment of your market.

5. If I am understanding what I am studying of Java, you can have one code base serve both as standalone applications and as "applets" that can be run inside of Web pages.

6. All operating system vendors I'm aware of are including a Java Virtual Machine with their operating system now. So new operating systems are Java-ready right out of the box.

7. Java is gearing to make headway in the smaller devices market such as hand-helds, laptops, palm devices and other embedded devices. Further, it has an optional new networking technology that is supposed to make networking easier. I've not dealt with this part, so I can't speak from personal experience.

8. The importance in the shift of the computing market to smaller devices should not be taken lightly. Heavyweights such as IBM are publicly announcing that the PC is dead. There is a growing wave in the market to shift to "thin client computing," which means having either a scaled-down PC on the desktop or a network-type computer that is really a graphics terminal with a keyboard and mouse. Java is set to handle thin client computing by allowing the programmer to develop full-scale, reliable, fast, server-sided applications that the client interacts with by nothing more than a Web browser.

9. The Internet is becoming a larger factor in corporate America. Java was written with the intent of being run on the Internet. That is where it started and then grew into the language that it is today.

10. Companies are growing tired of the high maintenance, high support, and high overhead of the typical "fat client" PC where users install applications that conflict with and break applications they should be using for work. If they are given a machine with scaled-down abilities or a machine that is merely a Web client, then these issues go away. The move to thin client computing also lowers the companies' investment in hardware/support costs per employee to provide them with computing power.

11. Companies are setting up their own intranets rather than the typical client/server environment. These intranets are being extended to set up extranets, small internets that are used inside the company along with customers of the company who have been granted access privileges to the internal network. The backbone of these networks is becoming the Java language.

12. Large companies, such as NationsBank, who through merger and acquisition have inherited all kinds of hardware, are using Java to develop and distribute their applications so that the issue of what hardware and operating system is not the critical factor anymore.

13. Other developer companies, such as Oracle, are developing database technology with Java that uses only a small portion of the standard operating system. So companies such as BASIS can't always rely on a full-fledged version of the operating system being there to run its interpreter. In this particular case, a small portion of the Sun UNIX kernel is supposed to be used. Other database vendors are creating SQL databases written entirely in Java.

These are just some of the things I have found out about the language as I have researched and studied it. I must say that when reading the details of the trial currently going on between Sun and Microsoft, you get the feeling you are on the right track by going with Java. After all, Microsoft appears to be plenty scared of it. [The author's personal opinion about Microsoft was deleted.-Ed.] The other thing to think about is, if you are someone who likes the Windows look and feel but does not like Microsoft or the problems with its products, here is your chance to create Windows applications and not use a single Microsoft product in the process.

I'm just listing the things that I see as a plus for going with Java and that might be some of the same things that BASIS saw when it looked at it.