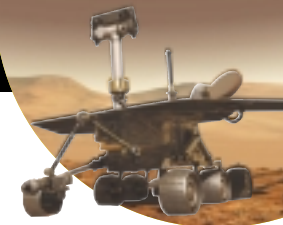# BRINGING MARS DOWN TO EARTH WITH JAVA 3D

No.1 *i*-Technology Magazine in the World

JDJ

How to Explore Mars Without a Rover

EXCLUSIVE INTERVIEW!

HIGH TECH HAS GROWN UP

Q&A WITH QUEST SOFTWARE CHAIRMAN & CEO

Plus...

- Exposing J2EE **Urban Myths**
- An *i*-Technology **Weather Report**
- Where's Open Source in the **App Server Surveys?**

VINNY SMITH
CHAIRMAN & CEO
QUEST SOFTWARE

Exclusive Q&A
with
Vinny Smith
Chairman and CEO
of
Quest Software

Interview by Jeremy Geelan

'HIGH TECH HAS GROWN UP'

*A relative newcomer to the Java market, Quest Software's avowed mission is "to simplify IT management." **JDJ** asks Quest chairman and CEO Vincent C. (Vinny) Smith about J2EE, .NET, Web services, SOAs, the overall landscape for IT organizations, and the future of the technology space as he sees it – including the growth of the corporate Java market.*

First and foremost, thank you for agreeing to talk with *JDJ*, the world's leading *i*-technology magazine.

JDJ: **Why did Quest Software get into Java? Is this part of a bigger Quest game plan? Where do you plan to take your Java solutions?**
Vincent Smith: Java and J2EE are now an integral part of the IT technology stack. As a leader in application management, we needed to support our customers in developing and putting into production Java-based applications so that they can develop applications faster and manage them more effectively.

Our plan is to help make Java an even bigger success in enterprise applications with solutions that continue to improve developer productivity and application performance management. As Java and J2EE applications become more tied together with existing IT systems and service-oriented architectures, I think Quest Software is the company most able to provide integrated solutions that detect, diagnose, and resolve performance issues across all of these application components, regardless of platform or infrastructure vendor.

For example, our new Application Performance Management (APM) Suite for the J2EE platform enables companies to manage critical J2EE applications at every stage of the application life cycle with total confidence. It includes integrated application monitoring, real-time application server diagnostics, and system-wide J2EE diagnostics right down to individual lines of Java code. And it's heterogeneous, supporting all of the top Java application servers and platforms used by IT.

With our history of leadership in heterogeneous database development and management, we believe we are the only company that can offer IT this kind of freedom for Java with our solutions for Java-based application development and management. Providing new value to our Java customers will continue to be an ongoing focus for Quest Software.

JDJ: **Tell us a little about Quest Software's experiences with Java, compared to .NET. Do you believe there will always be room for both technologies?**
VS: I visit customer sites pretty often and you know, we haven't seen a lot of .NET, at least in large applications. I'm definitely seeing J2EE being used a lot in critical, high-volume enterprise applications. It's in those types of applications where management of performance and scalability is an issue.

I think J2EE and .NET will ultimately end up coexisting in the market. J2EE is great for large-scale enterprise applications, while .NET may be better suited for department-level applications and where rich GUI clients are a requirement. Businesses will choose the technology that best meets their needs for their applications.

JDJ: **Do you share the view that J2EE is over-complicated? Or is the latest generation of development tools easing the pain?**
VS: J2EE is certainly very complex – however, I don't think it's overly complicated. J2EE is designed to be a base platform for high-volume, scalable business applications. It's as complicated as it needs to be to achieve this goal.

But now that the base platform and underlying infrastructure of J2EE is there, it needs to be made easier to use – for developers, architects, quality assurance, and system administrators. Vendors like Quest are stepping up to make using J2EE easier and to help newcomers be productive faster. Industry groups like the Java Tools Community (JTC) and the Eclipse Foundation are doing their part. It's in everyone's interest to make J2EE more useful for the enterprise.

JDJ: **Will Java ever be challenged seriously in the enterprise, do you think, or on the server side?**
VS: Probably – there's nothing as constant as change in this business.

It's certainly not news that Microsoft has its sights set on the enterprise. We see it today in our database business with SQL Server. But I believe that .NET and Windows still have some maturing to do in the areas of security, transaction handling, and scalability before we will see it truly challenging Java for critical enterprise and customer-facing Web applications.

JDJ: **Take a moment to reflect on Java's history. What's one thing that Java has gotten completely right – and, conversely, is there anything in Java's history that you would like to change?**
VS: J2EE is a clearly a huge success. It has become the preeminent enterprise software platform in a remarkably short amount of time. In retrospect, more attention could have been paid to J2EE's complexity issues. But no technology is perfect. Back in the old days of "green screen" applications, there wasn't a lot between the application code and the OS, and those applications were also arguably less complex. Today, we have Internet architectures and the distributed J2EE technology stack, which enables much more complex applications to be built relatively easily. But, this also brings new and not-always-known dependencies to the system. I think the Java community is well on its way to addressing the issues of complexity.

JDJ: **When Quest acquired Sitraka, many developers were concerned as to the fate of favorite tools like JProbe, the first toolset for 64-bit Java – what's the status of JProbe today?**
VS: All of the products developed by Sitraka, including JProbe, are alive and well. I'm glad you asked this, because even though Quest is a relatively new name in the Java market, we have an impressive set of Java solutions that have, over the years, obtained tremendous reputations as leading Java tools. In fact, over 8,000 companies use Quest Java products today.

We recently released a new version of Quest JProbe with some big enhancements, including new features for investigating memory use. Earlier this year, we also extended JProbe's 64-bit Java support to Windows and Linux environments.

We just announced a major new version of Quest PerformaSure with new support for Oracle9*i*AS and BEA WebLogic JRockit, a new SQL browser for better application/database diagnosis, and other diagnostic features that our customers have been asking for. PerformaSure, along with JProbe, is a key component of our new complete life-cycle application management solution, the Quest Application Performance Management (APM) Suite for the J2EE platform.

Quest JClass also continues to be very popular with Java developers. We were pleased to see JClass ServerViews win a JOLT Productivity Award this spring. We are continuing to enhance the product line and you may see a new release by the time you read this. There's more going on that we could get into, but I think it's clear that Quest Software is fully committed to the Java market.

JDJ: **Sometimes acquisitions are done to eliminate competition. And sometimes acquired products stagnate in a larger company. Can you be more concrete about Quest's future directions for its Java products?**

VS: Our Java solutions fit very well with our overall mission to simplify IT management. Any technology stack that is key to the enterprise is important to Quest. We have made acquisitions in the Java space because of how important Java has become to the enterprise.

Quest Software's products and solutions are a reflection of the growing number of complex technology stacks IT relies on. Besides Java-based systems, IT organizations are tasked with managing complex custom application and database infrastructures, along with an extensive Microsoft-specific infrastructure (Exchange, Active Directory, etc.).

Although Quest does have products for managing Microsoft environments and database infrastructures, we think of Java as a distinct market and have structured the company with a dedicated team focused on delivering solutions to help manage the entire Java application life cycle. We have done this for Java application environments first, because that's where we see the demand and the growth opportunity.

JDJ: **Our readers are always interested in hearing about what people are doing with Java. Can you talk about some of the most interesting Java applications you've seen in production?**

VS: One interesting J2EE application I've seen is a Web-based song purchase application one of our customers, a major music retailer, has been building. It's along the lines of the online Apple Music Store. With J2EE they have been able to build a scalable, customer-facing application and put it into production in mere months. With the Quest APM Suite for the J2EE platform, we helped optimize the scalability of the system so that when it went live it could handle hundreds of simultaneous end-user transactions. Another Java application that many readers have heard about is the NASA Maestro software used to operate and visualize the data collected by the Mars Rovers. The application team used Quest JProbe to tune the Java code, and also used JClass components under the hood. The development team has said that they couldn't have put the project together as quickly or cost-effectively without tools like these. Very cool.

JDJ: **What are some of the biggest issues you see facing Java developers and managers today?**

VS: I see two particularly big issues for corporate Java developers.

The first is managing large-scale production J2EE applications. Ideally once an application goes into production, IT operations staff should manage it, but when a newly deployed J2EE application develops performance or scalability issues, the developers are usually needed (along with DBAs and other functional experts) to diagnose the problem. Even the most experienced J2EE developers have a hard time diagnosing issues in systems as large and complex as we have now. Intelligent, collaborative diagnostic tools really are necessary to diagnose and resolve problems quickly and keep critical J2EE systems running smoothly.

The second issue is dealing with increasingly heterogeneous Java infrastructures. Most companies are taking a "best of breed" approach in selecting Java and J2EE infrastructure, including the application servers, clustering, database back ends, etc. It's hard for one team to manage Java and J2EE application components when some run on WebLogic, some are WebSphere/DB2, and some are open source approaches like JBoss, Linux, and MySQL. Ideally, companies and developers should choose management and development tools that give them the freedom to use whatever J2EE infrastructure they like today, knowing that they can have the freedom to change it over time.

JDJ: **What do you think Java's role will be in the future of the enterprise applications?**

VS: Java really is becoming the core component here. Packaged application vendors are adopting Java for new, modern user interfaces and new ways of accessing packaged and legacy applications.

For example, client-side Java-based GUIs provide a highly productive user interface for heavy users of a packaged application system. Less frequent or higher-level users of packaged apps have the option of server-side Web-based Java user interfaces, whether they're standalone or part of a "dashboard" portal set-up.

Beyond direct user interfaces, we see Java making it possible for packaged applications to be used in entirely new ways. I'm talking about Web services and service-oriented architectures. Rather than simply a user interface, Java can enable IT to build entirely new "composite" applications that use elements of their legacy packaged applications as service providers, data feeds if you will. This element is really changing the way that packaged applications are evolving, and it's really exciting.

JDJ: **What's going to be big in the next 18 months? Are there still new business opportunities in Java? Or should those wishing to invest in startup companies stick to investing in Microsoft's architecture and go with .NET instead?**

VS: Are there still new business opportunities in Java? You bet. But I don't believe individual investors should get into startups – that's the role of venture capital firms. Let me discuss the areas we are most interested in right now, that are most relevant to our customers.

First, there's the growing size of the corporate Java market. Java on both the server and desktop has matured to the point where now smaller and mid-sized companies are comfortable committing to it for their critical business applications. This increases the size of the market for Java solutions from development to diagnostic to application management.

This trend actually highlights one particular opportunity – the need to make development, tuning, and management tools smarter and more usable for companies new to Java. That might mean providing visual development tools with more expert performance tuning, or application management that works with adaptive infrastructure environments.

Then there are some emerging Java opportunities coming along, such as Web services, that have the potential to greatly improve business flexibility and productivity.

JDJ: **You actually started as an Oracle salesman. What advice would you have for someone young and starting out in the technology space today: should they be writing it, investing in it, selling it, or avoiding it?**

VS: You've got to go where your passion is. I'm passionate about making a real difference in how businesses use software to be more effective, and I followed that passion through good times and bad. It's the same for anyone starting out in high tech today – find the area that drives you and go for it. There's tons of room for innovation in IT today, but like any maturing industry, high tech has grown up. I visit a lot of companies and see their IT problems firsthand; IT will gladly pay for solutions, but they have to provide real value, real ROI. So high tech still needs fresh ideas and enthusiastic newcomers, in all areas.

JDJ: **Who would be the one client not yet captured by Quest that you'd be proudest to win over in 2004?**

VS: For our Java business? How about Microsoft? <grin>

Seriously, though, it's not the next sales win that I really get jazzed about, it's when a customer calls me to tell me that we made a big difference in their business. Or when I get an e-mail from a customer thanking our people for going that extra mile to help them really solve their technology problems.

It's a testament to our great products and awesome, committed staff to hear this from our customers. And that's what makes me proud. ✐