

McDONALD: Welcome to the eg3.com TechChoice podcast. I'm your host Jason McDonald, senior editor. These podcasts identify today's hot technology trends for designers as well as the companies and products that can help you turn technology trends into real applications. For more podcasts go to [eg3.com/podcast](http://eg3.com/podcast).

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I'd like to welcome Greg Sikes, who is the Director of Architecture and Modeling for IBM Rational Software to the eg3.com TechChoice podcast. And as many of you know, eg3 is really following the so-called software crisis in embedded systems, or issues with high-quality embedded software, very extensively. And we're hoping to query Greg about some of the tools and new initiatives coming out of IBM Rational software. So Greg, welcome to the program.

SIKES: Hi Jason. Good to talk to you again.

McDONALD: Great. Well, Greg first of all, there is obviously a little confusion and uncertainty in the market since IBM acquired Rational Software a few years back, and then Telelogic acquired ILogics and their well-respected Rhapsody product line. And then Telelogic has now been acquired by IBM.

So our listeners who are primarily people developing new products and industrial, automotive, aeronautics, medical, and they're looking to a software vendor for tools and products that improve their software, I thought it would be helpful if first of all you could kind of explain the IBM Rational strategy for, kind of high end embedded.

And kind of give us the elevator pitch, and what was the merger about, and kind of what's your pitch from IBM Rational as to what you guys do for developers of embedded software.

SIKES: Well, Jason, people and the businesses they connect to our driving the need for smarter products that are intelligent, instrumented and interconnected. As software becomes a key ingredient for innovation and product differentiation, the traditional manufacturers are becoming more like software companies, or having to act more like software companies. And this brings a whole new set of challenges to the way these companies design and deliver the products.

No one understands this challenge better than the people who are responsible for embedded software and systems engineering. It's a challenge they've been facing for many years.

Here at IBM we offer a comprehensive portfolio that covers feature identification and prioritization, requirements engineering, model-driven definition design and implementation, quality management security, software configuration management and change management.

That's quite an extensive list I just went through, but it, you know, it really emphasizes the fact that IBM is the company best positioned to help these organizations bring smarter products to market in a more cost effective manner while not sacrificing innovation.

McDONALD: Okay. And any heads up on the merger, any particular strategy with this merger and acquisition that is relevant for people that are in embedded? Is there some grand vision here to this putting together of these leaders in the software space?

SIKES: Well, certainly we're taking the best aspects of each of our portfolios as we put them together to come up with solutions that are best for our customers. You know, simplistically, Jason, we're focusing on customer satisfaction first and not leaving any customer behind.

The other really nice thing that this merging of the two entities provides is the access for the embedded systems and software development to a larger part of the portfolio and

technology that exists within IBM.

And let me just give you a simple example of that. You know, IBM recently acquired Cognos, and so you can imagine that the embedded systems and software team is beginning to work with a team that's making Cognos reporting technology available across the portfolio. So that's one example of a number of different things that are happening as a result of this acquisition.

McDONALD: Okay. Now, I'm going to confess that as a journalist, you know, I cover a lot of different models and I'm always kind of a little bit behind that curve. And I struggle with the high-end software tools. There are a lot of tools, they're pretty complex and, you know, today we have this kind of instant mindset, you know, quick Internet economy where we want these piffy little pitches. What's the product, what does it solve, who benefits?

And I know when we get to the end of the podcast we're going to have a lot of links to some micro sites that IBM has set up for people to learn about their offerings, and so there's a lot more detail on the Web. But I thought it would be fun to try to coerce you into some really quick bulleted, you know, one or two sentence descriptions of the products that IBM Rational is pushing in the embedded space.

You know, so work with me here. Just imagine I'm a busy executive at an OEM manufacturer sort of company, and I'm in the elevator and I want a rapid fire you with this different products that you guys have announced some changes in and some new enhancements. So you ready to do this? It would be kind of fun I thought.

SIKES: Yes. You bet Jason.

McDONALD: Okay so first up, IBM Rational Web Top. Who benefits and what does it do?

SIKES: IBM Rational Web Top is basically a mash up in a Web browser that contains a single view of information from multiple software tools such as IBM Rational DOORS for requirements management and IBM Rational Change for change management. So within this simple Web interface, teams or our customers that use are more productive during the product design development and delivery process.

McDONALD: Okay. And IBM Rational DOORS -- what does that one do, and who benefits from DOORS?

SIKES: IBM Rational DOORS is one of the best known and widely used requirements management solutions available in the market. DOORS helps customers cost-effectively design, develop and deliver products that meet the market

requirements first time with high quality. DOORS also includes a Web interface that allows globally distributed engineering teams to collaborate on the product requirements.

McDONALD: Excellent. Okay third app, IBM Rational Change and Rational Synergy. What do they do and who benefits from those products?

SIKES: So, Jason if we've learned anything from this fast-paced world, it's that change is always just around the corner. IBM Rational Change helps companies deal with product changes and to minimize the associated impact of these changes.

IBM Rational Synergy helps software development teams easily manage their software code. Both products are integrated with our requirements and model driven engineering products, and support both local and globally distributed engineering teams.

McDONALD: Okay. Fourth, there is IBM Rational Team Concert. What does it do, and who benefits from Team Concert?

SIKES: So IBM Rational Team Concert is about agility, collaboration and automation. It allows teams to be

immediately operational with Agile development methods. The beneficiaries are these teams that implement Team Concert, because they can be operational on day one, if you will, even if they are globally distributed.

And last but not least, Team Concert is based on IBM's Jazz technology, something you will continue to hear more and more about. And you and your listeners can visit us at [www.jazz.net](http://www.jazz.net) if you want to learn more about this.

McDONALD: Okay. And finally, the old friend of mine, IBM Rational Rhapsody, it seems to kind of fuse some of your families. So what does Rational do...I'm sorry, what does Rhapsody do and who benefits from Rhapsody?

SIKES: So IBM Rational Rhapsody is a model-based systems design and software development environment for technical real time and embedded systems. Today's smarter products that I talked a little bit about before blend cost-effective systems with innovative, embedded software. Rhapsody helps remove the complexity of architecting, designing and developing these products.

McDONALD: Okay. That was fantastic. It's very useful because there's a lot of different products just to try to pigeonhole which one does what, I thought that would be very helpful for listeners who aren't aware of really the

incredible breadth of the products that IBM has that are touching on the needs of embedded software developers. And of course, we'll have some links on the podcast page so people can get as much information as they want on those.

So let's move up to some higher concepts now and back to some more higher-level sorts of issues, and let's talk about tools and transitions. And one of the areas, as I'm sure you know, in embedded software quality that's difficult, is you're trying to get developers to make a pretty substantial shift in the methodology they're used...they're currently using.

In a lot of the current users it's kind of ad hoc, the stuff has grown up over time. They're kind of on a treadmill where they should change but they're afraid to change because of what they have done has worked, but then on the other hand, the complexity is killing these teams and making it really difficult.

So how does IBM and your products, do they require a change in the way that developers create mindset? And how have you made this transition easier for so many companies that are on this treadmill of product design but they realize that they need to start transitioning to more formal methods, better tools, that sort of thing. How have you made it easy for people to graduate up to better methods?

SIKES: Jason what a...you know, what a great question. Many of our customers simply do not have the luxury of starting over; rather, they quite likely to have significant investment in existing software code. We at IBM fully understand and appreciate that.

You know, one such example is Rhapsody and let me explain what I mean by that. Rhapsody can easily handle existing software code and reconstruct the associated architecture which is then kept in sync with the software moving forward.

We actually have a name for this and we call this capability code respect.

And to help companies take the crawl, walk, run approach, IBM offers a robust library of best practices that are based on our years of experience serving, you know, the customers in this area.

And this library includes systems engineering methods that are built on the open standard of Eclipse. Companies are welcome to take these best practices and use them out of the box or even make them their own. You know, and of course we have a services team of experts that there, ready and waiting to help our customers as needed.

McDONALD: Okay. I like that idea of crawl, walk, run.

That's a good concept I think in the idea of code respect because that hits at this issue of dealing with the way we used to do software development and transitioning to some better methods and products.

Now, just turning a little bit more concretely to some of the success stories, application areas, I know you have a bunch on your Web site and some of those are really impressive.

I thought you could share one of those with us with Eaton Corporation, that you had mentioned to me in the pre-interview, where they've kind of created an intelligent drive train and it's kind of change the way that they've looked at their company and what they're doing. So why don't you just give us a high level overview of what Eaton Corporation did with IBM Rational.

SIKES:           Okay, Jason, happy to. You know Eaton is one of the success stories, actually ongoing success stories, that I really enjoy talking about because it's something that we can all relate to. Eaton is a great example of a company that's creating a smarter product. And by that I mean, you know, transmissions of the past were, you know, basically metal on metal with some rubber joints squeezed in between and a bit of oil for lubrication.

What Eaton is doing is innovating a new type of transmission for delivery trucks that helps the owners of these delivery trucks reduce fuel consumption by capturing and reusing energy from the vehicles, you know, many starts and stops during the delivery process.

And so this transmission is smarter because, you know, in addition to the metal and the rubber and the oil that's in it, it hasn't embedded software brain.

And you know, both the transmission system and its embedded software are being designed and developed using IBM Rational products including Rhapsody. You know, certainly from Eaton's perspective this type of innovation, they feel gives them a competitive advantage over other companies.

McDONALD: Really cool. Okay, now, finally in the news that you guys just announced recently, you have what's called a solutions experience lab for systems engineering and embedded software. So it's quite a mouthful to describe it. And I thought, it's intriguing. So what is this lab? Where, who can go there and use it, and what do you get when you interact with this new institution?

SIKES: Okay. You're right Jason, it is quite a mouthful and I'm guessing somewhere in IBM there's a team of people working on a three letter acronym for...

[ LAUGHTER ]

SIKES: ....this long name. But the solutions experience lab is a great resource where our customers and business partners can explore solutions to their embedded software and systems engineering challenges. You know, we will also host symposiums and workshops that will help the professional as well as the academic community stay on top of new developments in this area.

The first lab is located at the IBM Innovation Center located in Waltham, Massachusetts, but we also have 40 innovation centers around the world and we expect to offer similar capabilities in other locations such as Austin, Texas, Tokyo, Japan and Munich, Germany, later this year. Customers can learn more about this on the IBM Web site in the links that you provide to them.

McDONALD: Okay. And now just another little learning experience I know that's out there, you're having a pretty big kind of user conference or IBM Rational event coming up in Orlando, I believe, in June. So tell us what that is and what would somebody get by attending?

SIKES: Okay. So coming up in the first week of June in Orlando is a combination of the heritage Rational User Conference that traditionally occurs every June and the

heritage Telelogic innovation event that would typically occur at different points in the year depending on where in the world you were. So this event is really both events put together.

McDONALD: Okay.

SIKES: And so, you know, you're welcome to attend this event and of course freely flow between the two locations. So, you know, within a short distance of each other you have Rational Software Conference and Innovation 2009 and if you want to go, you know, just hang out with the system engineers mostly you can go to Innovation 2009. But if there's some topics that intrigue you, you know, more on the IT side if you will, you can go to the Rational Software Conference. And or vice versa, of course.

McDONALD: All right, fabulous. Okay, well, we're out of time here, and I know that software tools is, you know, really complicated and detailed, and I want to thank you for subjecting yourself to a really quick rapid fire interview.

And of course, again, we'll have links on the podcast site for listeners to go to get all the details. So Greg, thank you so much for speaking with us.

SIKES: Thanks Jason.

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