**IBM**

**Moderator: Angelique Matheny**
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**12:00 pm CT**

Coordinator:     Welcome and thank you for standing by. At this time all participants are in a listen-only mode until the question-and-answer session.

If you would like to ask a question at that time, please press star 1 on your touchtone phone and please clearly record your name when prompted.

Today's conference is being recorded. If you have any objections you may disconnect at this time.

I'd like to go ahead and turn the call over to Mrs. Angelique Matheny. You may begin.

Angelique Matheny:   Thank you very much. Hello everyone and welcome to this Rational Talk view's teleconference Streamline Software Delivery to Gain Market Advantage series.

This is Episode 3 of the series Migration from Compuware to Rational Software Testing Tools, RTTS customer success story.

I'm Angelique Matheny. I'll be your host for today's call. Now these calls are really for you. We want this to be interactive and this is your chance to get your questions answered and to discuss what's on your mind. We'll open the lines during the Q&A session at the end of the presentation. And as the operator mentioned, press star 1 when we do that. Don't be shy. Write those questions down and get ready.

Also if you'd like to submit questions to our panelist after this teleconference, please email us at askusnow@us.ibm.com. Just put the title of this teleconference in the subject line and I'll make sure it gets to the right place.

You need to deliver enduring quality for your critical business application and a proven integrated test automation strategy can help you get to market faster with increased test coverage and reliability at reduced risk and cost.

In this teleconference, Real Time Technology Solutions, (she) has more than its customer experiences in helping, then to implement and migrate from Compuware, Two-Way Room, to IBM Rational Functional tester and Compuware QA center performance edition to IBM Rational Performance tester. And once migrated, RTTS then integrated IBM Rational Functional tester into the existing IBM Tivoli IT (can) environment, so that the customer could monitor daily production of functional costs.

And with that I think you've heard about enough from me, so let's get started. Welcome (Brian Bryson), Solutions Marketing Manager. (Bryan) why don't I let you take it from here?

(Brian Bryson):   Sounds great. And thanks for the introduction, the overview of what we're talking about here today Angelique.

So welcome everyone. My name is (Brian Bryson). I'm the Solutions Marketing Manager here at IBM Rational and it's my job with IBM Rational to talk about our Quality Management Portfolio and make sure everybody is up to date on the latest and greatest of what's coming out of our Quality Management Portfolio and tool set.

We've had over the last, oh I don't know, I think we started to see this trend coming up in the last year or so, a lot of customer conversion type engagements where we've seen people switching from one tool or another moving on to the IBM platform. And so we're lucky to have with us today, (Bill Hayduk) from RTTS, who is - has gone through one of these - one of the more in-depth conversions, in this case, happened to be a customer that migrated from Compuware over to the IBM Rational platform.

And the objective of today's call is really just to talk about that migration, what prompted it from a business perspective, a little bit on the technical side, you know, what were some of the challenges? What were some of the lessons learned?

And just to provide guidance because we know that many of our customer and client base out there is going through a very similar process. Now it may not be Compuware, might be from any other tool, might be from just homegrown tools doing the migration. But there are some issues that we wanted to cover and talk about those with everyone today.

So we - you know, the man who did the work, or the man whose company did the work, is (Bill Hayduk). He's the founder and President of RTTS. RTTS is one of our IBM premier business partners and one of our longest partners. In fact, they go back - the relationship with IBM lasts longer than the actual - than the company's actually been with IBM. RTTS has been a long-time

partner and they've implemented a lot of large scale automation projects, many Fortune 500 firms in all the verticals, from banking, brokerage, multimedia, government, healthcare, really a wide breast of experience.

And so we're quite lucky to have (Bill) with us and, you know, it's funny (Bill) and I go back a long way to the very beginnings of when these tools started to emerge on the marketplace. And we both came to them from a background in financials. (Bill) was Management Consultant in the Foreign Exchange Industry. I, of course didn't mention it up front, but my background prior to getting into this quality management game, is that I'm an accountant.

And so it's - I've always found it kind of interesting that both (Bill) and I come with this, sort of this financial background. He's got an economic degree. I have a commerce degree. (Bill) has a master's of Science and went into accounting. He's done Foreign Exchange work. I've done stock and analysis work. So it's kind of interesting how we this, sort of this, both background in the financial world and I actually kind of wanted to start there, (Bill), before we actually get into some of the details of the conversion.

You know, I just wanted to - has your background, and I have an answer for this myself, but has your background in the financial been beneficial to you in the world of Software Quality Management?

(Bill Hayduk):    You know, (Bryan), I think it was. I worked in Financial Services for about eight years in foreign exchange, equities, banking and insurance before I entered the QA world that we all live in now. And I think I learned some of the sociology of the large banks, brokers and insurance firms. And they're all completely different. So I think I learned how they utilize and leverage technology as a competitive advantage. And I learned their business and technology processes, both the good and the bad.

(Brian Bryson):     You know, it's funny I found a - I had a very similar experience. I found the cost benefits and analytical thinking involved in financial is really carried over well and helps in the project management and the reporting aspects of the quality management issues. So it's a - I just always find it interesting that we're both coming from a very odd angle-

(Bill Hayduk):      Absolutely.

(Brian Bryson):     Started in finance and ended up here in software automation. So, you know, maybe that's a good starting point for this. You know, the whole cost benefit analysis. Because I think that's kind of where this story begins. So I wonder if we could start with you giving us a bit of a business level overview of what, you know, this customer's business and project was all about. And sort of get into the bottom line, you know, of how RTTS got called into this situation.

(Bill Hayduk):      Sure. The clients were a large international firm and they were performing due diligence regarding their software (quality) tools. And they had a license agreement with the Compuware set that was coming due at the end of the year. I'm not sure if you know this or if the people listening know this, but Compuware had a large subscription service that's paid on an annual basis and the company decided they needed to make a change to IBM before - and they had to do it by the end of the year when the subscription ran out.

                    So this is not a new scenario for us, by the way. We've done quite a few conversions from other vendors to the Rational tool set. You know, as a matter of fact, we're in the mist of doing two large ones right now. Well anyhow, the Rational team knew that we had expertise in lots of other tools, including Compuware's, so they knew that they could - that we could easily decipher the scripts and functions and do it pretty quickly.

So we were called in to evaluate and assist the conversion of the scripts. And the big issue we had was the time frame was condensed because all the variables that affect these large organizations. And actually when you look at it, there were two large organizations, when you throw IBM into the mix.

So there were time issues related to software evaluation of procurement, contracts and conversion. And also the systems are critical to the operations of the business. So w needed to have this stuff up and running by the time the ball dropped in New York City on New Year's Eve. So we had a six weeks window to get this done.

(Brian Bryson): That is not a long time frame when you're talking...

(Bill Hayduk): Not at all.

(Brian Bryson): ...collapse in large organizations. That's pretty cool. So obviously, I mean, you didn't do this all yourself. This is all part of under the RTTS umbrella. And, you know, as much as I tried to give an RTTS overview, maybe you can, you know, for the uninitiated we can talk a little bit about some of the background on RTTS and the services that you guys offer?

(Bill Hayduk): Sure. RTTS is the leading provider of software quality for critical business apps. We're based in New York City, which is where I am right now. We have offices in Atlanta, Philly and Phoenix, and we've been working with the Fortune 500 and mid-size firms since 1996, which is coincidentally when we first started supporting test tools from SQA, which you alluded to before. The Boston-based testing tool firm, where you and I first met, and it was purchased by Rational in about, I think '97, and then IBM in 2003. So we go all the way back through the history of IBM test tools.

Our basic key strengths are our employees. They're all hardcore development people along with having testing expertise. And also we have a big knowledge base and a lot of expertise in the software quality space, which are huge differentiators.

So, just to run down some of our services, we do software products assessments. We do system and tool integration. We do tool conversions, like this one. We do a data warehouse quality assurance. We build performance centers of excellence, and team education and training around the tool sets.

And we're pretty much on the point product, we're experts in performance and load, automated functional testing, app security, requirements for test management and application monitoring.

(Brian Bryson): That's quite a breath of a portfolio. That's awesome.

(Bill Hayduk): And it's only a mouth full.

(Brian Bryson): Yeah. Funny you say it, 1996 is when this all started. That's like 13 years ago. That's a long time ago.

(Bill Hayduk): Oh yeah.

(Brian Bryson): Okay so we've got the - we - the company calls you, they're pressed for time, obviously I guess if - so is it when the balls drops on New Year's Eve, does that mean the actual Compuware licensing just stops? Do the Compuware tools just stop working? And-

(Bill Hayduk):     That's it. The license is tied to the timeframe so December 31 it's gonna stop working and we've got to get this done quickly.

(Brian Bryson):     Nice timeframe to work with.

(Bill Hayduk):     Oh yeah.

(Brian Bryson):     So how did you sculpt the product? I mean we're talking - so was it, you know, was the emphasis functional testing? Was it performance testing? Where's the - what's the emphasis here?

(Bill Hayduk):     Well basically it was that and more. We're talking QA load commerce performance tool mapped into RTT. Test partner their functional tool to RST. And then we're talking Tivoli application monitoring. And they already had WebSphere installed. So we're talking - they were pretty much standardizing on IBM's software platform and this is where we at RTTS think IBM's strong suit lies, which is integration across multiple disciplines. So that's where they can really add a lot of value.

(Brian Bryson):     Yeah we see - it's funny you mentioned WebSphere. We see a lot of that on the Web tier side. Right? People run the Web tier server and then just get all the supporting tools to back it up. So let's drill down on some of those things then. So, you know, some of the finer details. How about the - let's start with the functional testing side. So it - what did we do - what did you do on the functional testing side to get them to move over to Rational Functional Tester?

(Bill Hayduk):     Okay so we need to re-script up about 200 test cases. So we had to reverse engineer them and knowing the test partner we could do that, you know, with not too much difficulty. It was a pretty complex script so there were five customer resources that were - that we trained on RST, and one full-time

RTTS resource doing the coding and one of senior guys on site twice a week doing mentoring to make sure, you know, there was good structure to the code, and that we're using modularity and coding functions. And this is for Web apps with WebSphere, J2E, ASP, ASP.net, Java (swing).

We pretty much implemented user-interface and then testing on this. And there were some technical challenge with some of the XML and the automated email notifications, but we were scripting along and doing a pretty good job of it with the picking apart the logs and a lot of the user-interface transactions.

So, you know, we did some cool stuff with pattern matching and URLs and regular expressions in the object map and a lot of verification point custom stuff that we wrote, custom log writes. We were using the RST API to extract HTML table data and a lot of other cool stuff like that.

(Brian Bryson):     Wow. So you're using the full power then of functional testers, especially if you're getting into the ATI and extracting data from tables and stuff. How did the - so the users that were there, I'm assuming, I mean obviously they're familiar with Two-Way Partner and stuff, but the tools use different languages right? I mean Two-Way Partner has the BB like sort of scripting thing, and obviously Functional Tester uses Java. How did they handle that transition? Or how did you handle that transition, maybe?

(Bill Hayduk):      Right. Well, Test Partner actually uses VB6, which is...

(Brian Bryson):     Oh.

(Bill Hayduk):      ...which is good language. I learned on VB2 and, you know, it's very similar. But it's all good technology, and as you know, it's a generation back from

Microsoft, because they have VB.net out there as their secondary language. And (Steve Sharpe) is basically their primary.

(Brian Bryson):     Yep.

(Bill Hayduk):     And the cool thing is since the customer used Java as their internal development standard, RST and RTT, which both use Java as their underlying language fit right in, and it gave them the flexibility to address any customization that they needed to do. They could always run right down the hall to the developers if they weren't sure exactly from a testing perspective, how to get it done.

(Brian Bryson):     Nice. Well it's great to have that resource, right? It's just pure Java, so you can -

(Bill Hayduk):     Yep.

(Brian Bryson):     And you can just go find a developer. Heck, you can just Google up some code half the time.

(Bill Hayduk):     Probably could.

(Brian Bryson):     Let me take a quick step aside. I just saw a question come in from our Ask Us Now from our US.IBM.com email, and I've been sort of told to prompt along the way so you can get some more questions in here.

So if you do want to talk to (Bill) or ask about any of the specifics, you can send an email to askusnow@us.ibm.com all one word, and we'll pick up with those questions at the end. So you've already got one more question.

(Bill Hayduk):     Great.

(Brian Bryson):   So we'll do that. That covers the functional side of the house. So, 200 test cases then over six weeks, so you were moving at pretty impressive pace then, actually. What about the performance side? Was that as big of an effort? Or what happened to getting them up to speed on Rational Performance Tester?

(Bill Hayduk):     It was pretty similar effort. They had a lot of performance scripts. And, you know, obviously there's no script conversion that could be done with these so you have to re-write all the scripts, so you re-record them. And since clients have already had strong performance test skills on their team, we taught them RPT through our five day immersion course.

So it's - IBM, (Gentron), RTTS, three day advance. And we mentored them on their performance test and we had one guy that was there two days a week helping them, mentoring them, writing some scripts.

Some of the stuff was your standard data correlation, data pulling. And then we did some interesting stuff with randomly selecting from drop-down lists and we built a mechanism for auto-detecting report completion and selecting areas of image based - of an image like based on certain criteria and coordinates. So it was pretty cool stuff , but it was - it went pretty much the way the performance was. We had the hard deadline and we made it.

(Brian Bryson):   I gather, kind of maybe implicitly, you were talking a little about the - what I like is that you're leaving these mentors, sort of couple days a week. Have you found that to be a decent model to make them self-sufficient, to bring somebody in like that on a regular basis?

(Bill Hayduk):     Yeah absolutely. A lot of times customers want - already have a team in place, and especially if they're already using another tool, they already understand the concepts of whether it'd be performance or functional testing. For test management, what they want is somebody they can show them best practices, whether it be coding around the language of the tool, or helping them with tips and tricks. So for us that works great, plays right into our sweet spot.

(Brian Bryson):   Yeah.

(Bill Hayduk):     And for them, they get a tremendous amount of value, because it doesn't take them that long to ramp up and learn.

(Brian Bryson):   Right yeah. It's a great value for them, right, because it's not full-time somebody there twiddling their thumbs when there's nothing to do. You pile up your questions for when they're there, take full advantage of them, get that great resource and you become self-sufficient. It's a great model.

(Bill Hayduk):     Yeah it works well.

(Brian Bryson):   So, you know, when you were talking about this customer moving over, one of the things I picked up on there was that you talked a little about Tivoli and a lot of customers don't - aren't into that space, you know, development teams and, you know, operations teams, you know, the teams that usually use Tivoli tools. Our often work in silos, and, you know, which is, you know, sometimes you need to, right? You need to have a specialized team to get the job done. But there's some neat integrations, and it sounds like, I'm hoping it sounds like, these guys were able to take advantage of some of the integrations with some of the Web tier Tivoli products. Is that the case for these guys?

(Bill Hayduk):      Yep absolutely. We can pretty much speak for the Tivoli integration. As you said, there's some neat stuff where there's integration between the tools. So what we did is we wrote some scripts in RPT that covered your typical user transactions. And they were launched periodically in Tivoli to monitor production apps.

And, you know, for those people that are on the call that aren't really familiar with app performance monitoring, space or tools. Basically what the tools do is they perform transactions on a time interval, say hourly or three times a day or whatever to determine whether the apps available and whether transactions are being executed to meet service level agreements or any kind of threshold you might want to say.

So, you know, these thresholds can be client transaction times or they could be, you know, server or database thresholds, such as memorization (unintelligible), stuff like that. So if the apps down or if the threshold's exceeded, email notifications regarding the specifics can be sent out to the pertinent parties and issues can be seen on the dashboard view.

So this critical monitoring stuff for companies trying to keep their production apps, you know, performing well and make sure that there's nothing that's exceeding any of these thresholds. And IBM Rational and Tivoli has a nice integrative solution for this.

(Brian Bryson):    I'll even go you one step further. You can actually go, this is a little bit of a pre-training part, but you can actually import some of that monitoring data back into the performance sector later on. For analysis, define the bottlenecks too, if it happens to be a performance issue, you can suck in all the data and, you know, drill down to the source code to find out where your problems are with that IT cam and performance tester integration. But there's some neat

work happening and there's more actually. Maybe that will be a subject of an upcoming call, some of the interesting work that's coming out of the lab.

(Bill Hayduk):     There you go.

(Brian Bryson):   So oh really?

(Bill Hayduk):     We should have another conversation.

(Brian Bryson):   We've got next week's episode, right, ready to go. So let's - that's kind of the basis for us. Let's wrap it up a little bit and talk about some of the lessons learned, you know, for testers, I know a lot of people that are on the call today and will be Googling this call tomorrow and, you know, catching the replay. Considering the move to, you know, our tools from Compuware or Mercury or Homegrown or whatever solution, you know, what lessons learned or best practices, or what advice to you have to offer here?

(Bill Hayduk):     Well one of the cool things, you know, the individual tools are really strong in their domain, you know, RFT and RPT are basically built around the eclipse shell and you got the Java code underneath it, so it's all standards. And IT cam is also very strong on the Tivoli side.

And then you have, you know, the new products, RQM, Rational Quality Manager, which we became really adapters of, which gives you the Web-based interface for a test management tool that's great for our teams, which obviously we've been pestering you guys for, for years. And now it's a very strong product and we're very happy with it.

You know, on the functional side if you're going to do something like we did, your options to convert the scripture, you either, you know, do it yourself or

call someone like RTTS, where we can, you know, either do it for you or assist with, as you mentioned before, our mentoring. Now on the performance side, it's basically the same thing.

There's, you now, no magic conversion out there. You have to rewrite the scripts in RPT and, you know, then the real strength comes from the integration, whether it's with Rational Quality Manager and RFT or RPT or as we talked about before, from a wider perspective like the customer did with RPT and IT cam. But that's really IBM's strong suit right there.

So I guess my advice would be, you have to decide if you're going to do something like this, are you going to do it or is somebody else going to do it and then you're looking at something that does full integration and that's why IBM excels.

(Brian Bryson): Cool. Well that's crazy and it's nice to have some of that actionable advice to go with it. Well thanks. It's a pretty interesting story and I mean, I'm glad we're able to get you out here to talk about it because there's a lot of this type of conversion going on, so much consolidation going on in the industry. You know, companies buying companies and technology's all emerging that we're seeing a lot of people move over to the IBM platform.

And, you know, it's great to know that, you know, customers have the ability to just make this happen by themselves or, you know, for an accelerated, especially with these guys in this case in an accelerated timeframe, that's there's, you know, a wide variety of services available to support them and make it happen and get things done.

So those are kind of the questions, thoughts that I had. A couple things have come in from the Ask Us Now email address and so let's - and (Jose) we'll get to you - and operator, (Jose) are you there?

Coordinator:     Yes.

(Brian Bryson):   Can you do a - if people wanted to do a ask-a-question, can they - how does that work?

Coordinator:     Certainly. If you'd like to ask a question at this time, please press star 1 on your touchtone phone and please clearly record your name when prompted. One moment for the first question please.

(Brian Bryson):   Perfect. Well we've got actually three or four here that have come in. So we'll cut through these. I know often people are shy to talk on the phone, but the email ones seem to come in a little bit quicker. So let's go with these.

                  All right, you ready (Bill)?

(Bill Hayduk):    Sure.

(Brian Bryson):   Okay. So realizing this project was rushed how long would you have liked to have for this project, as opposed to the squished timeframe at these guys were…

(Bill Hayduk):    Yeah obviously more time would have been better. Probably something like 30-50% more time would have made it a little less stressful for everyone involved.

(Brian Bryson):   Gotcha.

(Bill Hayduk):    And one of the things is, you know, companies should pretty much treat these projects like lightweight development projects, which is what they were. So we're just saying, with those type of projects you have the same constraints and issues that you have with a larger project, or any other development project.

(Brian Bryson):    Yeah. That's a common story that we hear, actually, about these things need to be treated like development projects, especially when you get into the more powerful sides of the automation where you're doing some of the API stuff, where you're doing some of the more complex coding. It really is, you know, software development the project that you're managing.

                So next one. How did this compare to switching over from other tools like Mercury or is there even a difference?

(Bill Hayduk):    It's pretty much the same since there's no good translators between any of the tools.

(Brian Bryson):    Right.

(Bill Hayduk):    Other than, you know, your skilled resources recoding it.

(Brian Bryson):    Yep.

(Bill Hayduk):    It's pretty much the same regards to what tool you're starting with. And, you know, you have to remember you not only have to convert the automation code, but you also have to convert object maps, verification point data, input data. You know, a whole host of other things. But whatever the starting tool

is, whether it'd be, you know, Mercury's functional tool or, you know, Radical's performance tool, it's pretty much the same thing.

(Brian Bryson): Yep. And, you know, one of the new things - actually let me - another question here prompted. So let me give you one more question and then I'll come back to what I was going to say there. So this is actually a good one. You didn't talk about test management in this situation. Did the customer move to quality manager or did the customer move to quality manager as well?

(Bill Hayduk): You know, that's a good question and that came up at the beginning and they're definitely interested in RQM. But since this conversion was so time-compressed and we had to convert the existing assets of, you know, as I said by New Year's Eve, and RQM was just being released, the decision was to wait.

Let's get the assets that they need to run their business up first and then we'll talk about test management. And that's pretty much geared towards, you know, know, controlling the scripts, and axing the scripts and planning for new test efforts going forward. So they're definitely interested.

(Brian Bryson): Cool. And here you say New Year's Eve again, so I have to ask, did anybody end up working on New Year's Eve?

(Bill Hayduk): Yeah.

(Brian Bryson): That was fun.

(Bill Hayduk):     And afterwards too, because, you know, then once the pressures off, then it's, you know, keeping up and going back and making sure well-commented and all that good stuff.

(Brian Bryson):    Right. Yeah well I'm sure you pushed off whatever you could too, to do it, to do after, to meet the deadline. So -

(Bill Hayduk):     Yeah.

(Brian Bryson):    Where I was going with that before when that RQM question came up is, you know, you were saying there's no magic converter to flip from Script A, from one language to another. One of the new things on the jazz.net site, for RQM are adaptors for Load Runner and for Quick Test Professional, the Mercury functional test tool.

                   So that gives - you know, for people converting, that gives them another option for quality management to actually run those scripts. So before you actually do the conversion you can actually, you know, run them through quality manager and you have sort of an intermediary that they'll ultimately want to get on the functional tester and performance tester. But you got sort of a middle-ground there too, that's something that's new since you took on this -

(Bill Hayduk):     Yeah and actually, you know, their licensing is a little bit different, so they don't have that hard date where, you know, it shuts off and can't use it anymore. So it's more like if you were going to convert from like Quick desk Pro over, you would still have time. Or if you didn't want to convert you could still run the other tool, the other vendor's tools while you're doing all new development on yours, and you could take your time migrating without having that time crunch on you. So that's very cool stuff.

(Brian Bryson):     That's the real time pressure came from the thing turning into a pumpkin.

(Bill Hayduk):     Oh yeah.

(Brian Bryson):     When it first - (Bill), two more then we'll let you go. So, unless anything else comes in, so did you measure ROI, return on investments, on this project, going back to the financials.

(Bill Hayduk):     Right right. So no, there's always a look on ROI. And since, you know, the systems involved were all critical business systems so any down time for any reason costs the client revenue. So the ability to test for automation is critical, and, you know, since the reproducibility and the speed of automation is automatic all around in these situations and conditions. So it's - it wasn't an explicit ROI, but it was - if it doesn't work and we don't do it and the systems go down, then they're going to lose a lot of money.

(Brian Bryson):     Yep. Everybody feels the pressure, right? Yeah, (Bill), last one then, kind of a methodology one, it says "Was this an agile shop or a more traditional shop or more generally, can you talk about what test process you followed?"

(Bill Hayduk):     Yeah that's interesting because you know our job on this one, although we do a lot of implementation of test processes or following them. On this particular assignment, it really didn't have to do with test process, it was more of a coding exercise.

                    Coding again is a clock exercise. So I'm pretty sure there's more of a hybrid between traditional and agile, but on this one we didn't get a chance to actually see the process, you know, on a new development process or any kind

of iterative development process, it was more just code it and get it out there and beat the clock.

(Brian Bryson):     Yep. Cool. Well good. That's what we've got then. So let me point people to a couple places they can go for a little bit more information. And maybe, Angelique, you can add to that at the end as well.

Obviously the IBM.com Web site has everything about, you know, functional tester, performance tester, all the tools that we have been talking about today, the Tivoli tools the Webster tools. And IBM.com/developerworks is our knowledge site, where we have the forums and the white papers and the technical papers and all our information is there.

And quite frankly sometimes it's, you know, the URL's for our Web site are quite long and complex so it's difficult to tell you where exactly to go. If I was to give you one spot to go, I would suggest heading to RationalTester.com, which is a blog that we maintain as the product management team from IBM Rational. And that's where we point to our latest and greatest information on a variety of topics. So if you're looking for one spot to go on our site, the IBM Rational site for information, that's where I would head to.

On the RTTS site, (Bill), I was going to suggest RTTSWeb.com, but maybe I'll give you a second to point where people can go for some additional information about RTTS.

(Bill Hayduk):     You know, that's a pretty good place to start out. If they go to RTTSWeb.com, they can find all our information.

(Brian Bryson):     Perfect. All right, Angelique, with that I will hand it back to you and thank you for the opportunity to have this conference call today.

Angelique Matheny:   Well thank you very much, (Bryan) and to you our special guests with RTTS, we thank you for taking time out of your day to be with us. This was a very informative session, as always.

(Bill Hayduk):     Well thank you as well.

(Brian Bryson):     Yes thank you.

Angelique Matheny:   If you would like to listen to this conference again or share it with your colleagues, this will be made available for you to play in MP3 format in about a week or so on Rational Talk's Tool site at www.ibm.com/rational/talks.

Our previous teleconferences are available there as well, including the other episodes in this Streamline Software Delivery to Gain Markets Advantage series. And let's release two educational resources to get you started. We would like to thank your audience for your interest in IBM. We hope to see you back for another one of our events in the near future. Thank you very much. Talk to you soon.

Coordinator:     Thank you for participating in today's conference call. The call has concluded. You may go ahead and disconnect at this time and for those presenters, please give me a second and I'll place you in post-conference.

END