



RUNAS RADIO



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Richard
Campbell

RunAs Radio is a weekly Internet Audio Talk Show for IT Professionals working with Microsoft products. The full range of IT topics is covered from a Microsoft-centric viewpoint.



Greg
Hughes

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Jessica Moss Reports on SQL Server Reporting Services!
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[Music]

Brandon Wenn: From runasradio.com, you're listening to RunAs Radio, the Internet audio talk show for IT professionals with Richard Campbell and Greg Hughes. This is Brandon Wenn, announcing show #125, with guest Jessica Moss, recorded Saturday, August 22, 2009. RunAs Radio is produced each week by PWOP Productions, providing professional media and podcasting services online at pwop.com. You can follow the boys on Twitter at twitter.com/runasradio.

Richard Campbell: Thank you Brandon, you're listening to RunAs Radio, I'm your host Richard Campbell with me as always, my co-host, my partner in crime, Greg Hughes.

Greg Hughes: Yup, yup. That's me.

Richard Campbell: Here we are.

Greg Hughes: Here we are once again to do a good thing.

Richard Campbell: Yes and headed into the fall now so conference season...

Greg Hughes: Yup.

Richard Campbell: Not so nice but it's been a great summer.

Greg Hughes: Yeah, it has been. We get to share, we leave a few hours, well several hours apart but we get to share at least a somewhat common seasonal affect as far as these summer type things goes, it has been a very nice summer.

Richard Campbell: Yeah, both being on the West Coast, that's something at least.

Greg Hughes: It is.

Richard Campbell: It depends on where you go and we're talking to folks from all over the place but this week it's not that big a deal, it's only Virginia, not too far away. Let me introduce our guest Jessica Moss is a Microsoft SQL Server MVP and a business intelligence mentor with Solid Quality Mentors certified as an MCDBA, an MCTS in SQL Server 2005 Business Intelligence and here's a good one, MCITP for SQL Server 2005. I don't know even know what an ITP is.

Greg Hughes: I don't even know what a TS is.

Richard Campbell: She has been working with SQL Server 2005 and 2008 since their releases and has participated in many warehousing and reporting

solutions. Jessica enjoys working with the local community and is a regular speaker at user groups, code camps and conferences. You can read about her and her work on her blog at www.jessicamoss.com, welcome Jessica.

Greg Hughes: Hi, Jessica.

Jessica Moss: Thank you for having me.

Richard Campbell: I just saw you in Nashville for DevLink.

Jessica Moss: Yes, we were down there for a wonderful, wonderful conference that John and his team put on, had a really great time.

Richard Campbell: It is amazing, it's about 600 - 700 people at a Code Camp Level Show, attendees paid a \$100, the line up of speakers was stunning but what a great show just in terms of a buzz and really into building software and dealing with business intelligence and reporting services.

Jessica Moss: And really, you have some of the big names out there who are at some of those more expensive conferences that attended and I had people, afterwards, that are saying that it's the best conference they've ever been to.

Richard Campbell: Yeah.

Greg Hughes: Cool.

Richard Campbell: I think it's a connection in the people. After doing conferences now for 15 years, there's a buzz, when folks are sitting in the hallway talking to each other about a problem not even in the session but working with each other, that's really what you're looking for in a great conference.

Greg Hughes: The conversation.

Richard Campbell: Yeah.

Greg Hughes: Those conferences that are under a 1,000 people or under 800 people can be, they have a whole different vibe to them too, don't they?

Richard Campbell: Absolutely.

Jessica Moss: Did you get a chance to attend the open-space sessions as well?

Richard Campbell: Anytime I see Allen Stevens running an open space, I go at least once. I don't know what that guy does exactly but he has a knack for making an open space really, really work. So I sat



it on a couple of iPhone development open spaces and they were amazing.

Jessica Moss: I went to a few as well, a talk given about Twitter, how we can actually use that as a professional means and what we should say and not say and just walking into that room and seeing everybody actually involved and talking and communicating was really amazing to see.

Richard Campbell: And it's important to point out that an open space is not just a meeting space, there are rules and some structure around it but when it's done well it's really compelling.

Jessica Moss: Absolutely.

Richard Campbell: So talking reporting services, you're spending a lot of cycles on 2008 Reporting Services?

Jessica Moss: I am, compared to the 2005 version, I'm pushing a lot of people to make them move up because they've made so many improvements in the product that it's really worth it for companies to make the move up.

Richard Campbell: And isn't 2008 like the mythical version 3 that is always where Microsoft gets it right?

Jessica Moss: I actually never thought about it that way but you are right, it is. They made their first release of Reporting Services as a service pack to SQL Server 2000, so then the second version would have been 2005 and then you're right, version 3 was 2008 so they've got it right finally.

Richard Campbell: Yeah, oddly enough, it always seems to work that way.

Greg Hughes: And reporting services is one of the set of different adjunct applications that you get for free and a lot of people may not know about it but it comes free with SQL Server, right?

Jessica Moss: Absolutely, as well as integration services and analysis services you get all three of those with your SQL Server license and the exciting thing about Reporting Services too is that if you download SQL Server Express, the advanced version, you get Reporting Services as well with that and that's free, absolutely free for you to use.

Greg Hughes: The whole thing is free then huh, that is pretty cool.

Jessica Moss: Yes it is.

Richard Campbell: But you do have to own a license to SQL Server?

Jessica Moss: For the Express version?

Richard Campbell: Oh I guess for the Express version you don't need to own it but...

Greg Hughes: Huh?

Jessica Moss: No, you should be able to just download that and play around with Reporting Services to your heart's content.

Greg Hughes: All right, so you don't have to buy a license to play with it...

Richard Campbell: Yeah.

Greg Hughes: That's pretty cool.

Richard Campbell: It's just a question of, when I go into production, what license do I need to own to run Reporting Services?

Jessica Moss: Yes, absolutely and then you'll have to jump up to another version.

Richard Campbell: But it does just run on the SQL Server box right? It doesn't need its own stand alone machine, you don't need an extra license there?

Jessica Moss: Correct. You can put it on your regular SQL Server machine so if you only have one license, you get all of that wrapped into one package.

Richard Campbell: So generally when we're talking about reporting this way, are we talking to sort of classic, this is a replacement for Crystal Reports, Active Reports that kind of tool?

Jessica Moss: It can be and that's how a lot of people are using it. When we were talking about Reporting Services, there's actually a couple of different ways that we can use it and #1 is yes, it's a replacement for Crystal Reports, it's going to give you the ability to create your stand alone kind of static reports and a little bit of dynamic flexibility in there with parameters but in general, it's something that you create once and put in front of the users but then you've also got an application that comes with reporting services, it's called Report Builder 2.0. It's the version we have in 2008 and that gives a business analyst the opportunity to create their own reports. So you've actually gone beyond a little bit more than just a static version.

Richard Campbell: Right, so users can build reports using this.

Jessica Moss: Yeah.



Richard Campbell: Although, is that always a good idea? I have had experiences in the past where users manage to mess up joining and run a Cartesian product of a hundred billion rows and blame the reporting tool for being slow.

Jessica Moss: You've always got to blame the tool! Come on, it's never a user, it's never a person.

Greg Hughes: Can I build a baseline report that maybe uses as the simple stuff and then allow users within certain parameters to customize that? Is that a way that we can leverage it?

Jessica Moss: Absolutely and that's the way you'd want to manage that. Typically, the first thing you want to do is put the static reports in front of them and let them see what's available before you get them building their own reports and really doing the ad hoc side of things and then once you go and give them the report builder to create their own reports, it's definitely, it's a training process. Start with a few people and introduce them to the tool and let them know what they can do and can't do and really what's going to hurt the performance for them and even at that point once you've got to a few people that understand the tool, when you introduce it to a variety of other people, then they have a resource to go to as well, they can learn from and really understand how to use the tool the best.

Richard Campbell: I don't think I really want a whole lot of people in my office building reports, it's going to be one or two sort of key people that know what they're doing and they're familiar with it and you'll lean on for that.

Jessica Moss: It's funny, a lot of the organizations that I'm working at now are leaning towards, they have an actual reporting group or department team of people who create the reports for the entire organization...

Richard Campbell: Right.

Jessica Moss: And then you will end up with one team that really knows what they, what people are interested in seeing, what the actual values are, what the calculations are that really make up the business points that people are interested in.

Richard Campbell: Well this really comes down to the ability to sort of identify the gauges that matter in a business, right? Are we counting or measuring the right things and are we measuring the right way? I mean the worst thing in the world can be a report that gives you inaccurate results so that you're acting on incorrect data.

Jessica Moss: And now we're starting to get into my true love which is the business intelligence side of things...

Richard Campbell: Right, right.

Jessica Moss: Putting all the data into some sort of a warehouse solution to allow people to report off of it but you're absolutely right, we need to make sure that the information you're getting out to people is accurate.

Richard Campbell: So how do you define the difference between these sort of status reports directly off the database and what business intelligence brings to the equation?

Jessica Moss: Well we have kind of two pieces that we're going to start with which is the first set of reports are our operational reports and these are what people need to do, used to run their daily business. Things like how many shorts have I sold today?

Richard Campbell: Right.

Jessica Moss: I need to know right at this moment what I sold so that I can then order more or realize that I've got a huge overflow and I need to ship them out to an outlet mall, that's going to be number one. I need to look at these, I need real time data, exactly what's happening.

Richard Campbell: And that's really off the OLTP database like this is the data as it comes and goes, what my inventory levels are and that sort of thing.

Jessica Moss: Exactly, really transactional based at that point is what we're looking at.

Greg Hughes: Tactical type information.

Jessica Moss: Exactly, exactly. What you're going to be doing that day to actually do your job and then our second set is going to be our business intelligence side of things which is more trending, analytical, trying to decide based on past information that we have, what our information is for making our business decisions. So we want to see things like, when we're talking about the numbers shirts sold but really we want to see that information for each of our stores and be able to roll that information up into certain districts and then also look at it as an entire company level to see where we're going and what we need to do almost from a management perspective at that point about where were trying to head.

Richard Campbell: Is this also, got a big time component in it, let's see what this month looked like last year versus this year, that kind of thing?



Jessica Moss: Absolutely. When you're talking about that and this is where actually now the services play into the side of it absolutely, perfectly is that we're able to compare those different time periods and see what the variants is between those values.

Richard Campbell: And where does the cube come in, I mean why would I need a cube in all this? Can I get all this data from the transactional database?

Jessica Moss: It's always possible to get the data from the transactional side of things. When we're really talking about going to a cube and putting out data on top of it, we're trying to, there's multiple reasons and in no particular order one of them would be a way of aggregating all of that transactional data up so that we can access it a lot faster than we could from the transactional side.

Richard Campbell: Right.

Jessica Moss: Probably the number one reason that people go to doing the data warehouse and putting a cube on top of it is being able to bring information from 20 different disparate sources into one location so that you just don't have to go digging into all of these other systems to find that information.

Richard Campbell: Right.

Jessica Moss: And then also the time aspect that you were talking about, being able to do those comparisons over time with variances, with different ways of slicing the data is something that comes a lot easier from going off of the cube rather than having to figure out how to query and get that information from the transactional side.

Richard Campbell: The way I've often described this when we're dealing with it was transactional data is organized to write very quickly, take orders efficiently but not report particularly efficiently where all that data were reorganizing for analysis. It's just a different way of organize the data so that you analyze quickly but that's sort of lead us into this idea of sort of real time analysis or cube analysis, reporting services give us a tool for that you can do that sort of real time slice and dice look at the data as sort of explore your data to find things you didn't expect?

Jessica Moss: There is an aspect of it that will allow you to and that's when we get into the report builder side of things. There's a concept called the report model which is something you create or it might be you, an IT person would create this model of deciding what components, what entities, attributes they want to show to the user and when the user sees

that model inside of Report Builder, they're able to just do that drag and drop and create the different slices that they'd want to see and run that right there as an ad hoc reporting tool.

Richard Campbell: And they may or may not say this report at all, they're just exploring data.

Jessica Moss: Exactly.

Richard Campbell: Hopefully they find something interesting. I mean I'm an old Ralph Kimball fan and I really bought into this idea that this is an intuition kind of game. You're exploring data, looking for something unexpected and they're almost tenuous threads, you have very little time and the speed really matters here to pursue those threads, to find some unique nugget of information about your data.

Jessica Moss: Absolutely and when you're trying to put all of it together and you create your entire warehousing solution and create those reports. That's really what you're trying to expose to the business, is ways to dig in and find those anomalies that they otherwise, wouldn't have found.

Richard Campbell: And it's really an IT person that's sitting in front of that machine or is this more of a domain expert's job?

Jessica Moss: Oh, just recently, at a client where we were putting together a model for a data warehouse and I was sitting in a room with a business analyst, a technical lead and then an enterprise architect and the four of us sat down and banged out the information that we needed, how people were going to be looking at it and what the technical side of it was, how we could actually get that to the user. So people joke about business intelligence being an oxymoron...

Richard Campbell: Definitely.

Jessica Moss: But you really need to include the business when you're putting together these reporting requirements.

Richard Campbell: It's an interesting aspect to instrumenting a business just trying, it's a business decision to say this is the measure that matters in terms of the performance of this business. It's not always that clear right? It's not just 'profitability'.

Jessica Moss: Absolutely and you need to provide the date that they're comfortable with, that they understand and different ways of looking at it. So part of the Kimball approach that you were mentioning before, they have this idea of a best architecture where you actually start with a small piece of the business, a certain set of facts, of data



that can be aggregated and analyzed and a certain number of the dimension, the ways that we look at the data and we start very small and we slowly build up and as your users look at the first piece of data and really dig into it and realize what it is and what they have available, what it can do for them they will come back and start asking you for more, that's a good way of getting into that.

Richard Campbell: That's got to be the best case scenario, when your customers come back and ask you for more data, "I like this..."

Greg Hughes: Yeah.

Richard Campbell: "I need to know this, too."

Greg Hughes: The emphasis on business requirements as opposed to what is this technology do for us is really important, right? There's a tendency, at least in my experience, there's a tendency to say, "Hey, we have this really cool technology, let's find a problem to solve," as opposed to, "what are the business problems that we're trying to solve and how we can solve those and maybe that technology is one way to do that."

Jessica Moss: Absolutely and that's the thing that, I mean for us as technologists, we like playing with that new toy, the latest things that come out but we really need to focus on what the business actually needs.

Greg Hughes: Right.

Richard Campbell: Isn't reporting where the rubber hits the road as far as these apps are concerned? I mean, we create our data entry apps and collaboration apps and all these sorts of things but in the end the whole point of that was to be able to get a view of the performance of the business and that comes out in the reporting.

Jessica Moss: Absolutely. It's the most important part of your applications.

Richard Campbell: Yet it seems like the neglected piece. We put a lot of energy into the other bits of applications and reporting, I don't think it gets a fair shake.

Greg Hughes: Build a data warehouse and then how do you know what you know, right? You have to be able to find out, find that out, find that knowledge.

Jessica Moss: I agree entirely, it's something that companies really need to work on and focus on and it doesn't always get what it needs from the company.

Richard Campbell: When I think about reporting, are we really just talking about printing out pages of paper here? How do we represent this data once we've collected it?

Jessica Moss: There's a variety of ways. When we're talking about reporting services, the data or the reports are actually stored up on some sort of report manager and that could be a stand alone webpage, website that we have or you can incorporate it into SharePoint and manage your reports there and when you're showing them to the users, you can show them either through that manager, which would be just a regular website...

Richard Campbell: Right.

Jessica Moss: Or you can have them embedded into other applications. You can put it inside of a ASP.NET app or we can also put it into stand alone applications, Windows applications as well to get that information out to the user and once they've seen it in their application, they can export it to a number of different formats, Excel, PDF, TIFF's, as with 2008, we can export out to Word so there's a variety of ways to look at that information.

Richard Campbell: And dashboards seem to be very hip especially executives wants that three or four graphic tiny little summary in the corner of their screen, that gives them a sense that they know what the heartbeat of their business is.

Jessica Moss: Yes and really the whole point of the dashboard putting altogether all those KPI's, the Key Performance Indicators is a way to instantly see where the business is headed.

Richard Campbell: Right.

Jessica Moss: What we've got going on today and what we need to do to fix it for tomorrow.

Richard Campbell: Right. It's interesting to think it's not just about cranking out pages of paper, the old reems of ledger paper to figure out where the business is at, there's better ways to represent that now.

Jessica Moss: I tell everybody that I can, that I never want to see a report more than two pages.

Richard Campbell: Right.

Jessica Moss: Period, the end and I always get the answer but, but, but...

Richard Campbell: But...



Jessica Moss: Nope, two pages, that's it.

Richard Campbell: Two pages. So but, but, but, how do you roll that up?

Jessica Moss: Well, if you think about it when people create those reports with all those reams of pages, what they're doing is looking at the data to find a number of things. It could be an anomaly, it could be, "Hey, this customer had a purchase for a \$1,000,000 and normally they only spend \$10." and that's really what they're looking for or I need to find the top 10 stores that sold something this month. So what they really end up doing with all that data is looking through all of the records and searching and pulling out that data themselves.

Richard Campbell: Right.

Jessica Moss: We don't want them to have to do that. The idea is to figure out what they're actually looking for and just provide that for them.

Richard Campbell: Call out the fact that this guy usually spends \$10 a month and just spent a \$1,000,000 a month, that's the row in the report.

Jessica Moss: Right, because that really all they care about, you can get that in two pages.

Richard Campbell: Right. Don't let the human do the collation.

Jessica Moss: And it really at this point you're making your life easier as a technology or report writer person because that report is going to perform a lot faster and it's also making the business users happy because they don't have to spend all that time digging through the data.

Richard Campbell: Do you find, with your customers at times, you battle with confidence in the data like the guy gets a report and says, "This can't be right."

Jessica Moss: Yeah, you're always going to have those questions and truthfully, because oftentimes it's not right and it's something, a big part of what I do when I go to companies is to put in place ways of validating that data.

Richard Campbell: Right.

Jessica Moss: Making comparisons between previous reports or previous systems and calling out what the differences are and a lot of times, I was at one organization where as part of our report, we were rewriting a really old main frame application, lines and lines of code and we were doing a daily comparison and to track down an occasional issue, we had to

reevaluate what we were doing but we finally got to a point where whenever we found an anomaly and we'd go back to the original program, we'd find out that that program had occasionally missed a piece of conditional object and it was falling through.

Richard Campbell: Right. You're actually finding errors in the old system.

Jessica Moss: Exactly, exactly. So it's definitely something to keep in mind but it may not be you.

Richard Campbell: Well it's a good place to get to but I've certainly dealt with organizations where confidence level in the reporting was so low that they would invariably drill the data themselves and essentially trying to find out their own reporting solutions and it's a grim place to be, are there elements of reporting services we haven't talked about yet?

Jessica Moss: Well, just recently they released the new R2 for 2008 coming out, the August CTP which is really exciting. There are few things coming out with that that I think people will be thrilled to have inside of their reports. Probably, the first one would be the map image component that they included which we actually had seen this in 2008 CTP's but they weren't able to get it included in that version. So they've got it in now and it allows you to tie existing data that you have to spatial points and show that information graphically on a map inside of your report so that's going to be really interesting to see.

Richard Campbell: Earlier in the year we did a show around spatial data in SQL Server but we've never really talked about the reporting side of this, so R2 gives us good reporting against spatial data? I can actually include on my report a map with of an area with all locations of the new customers, that kind of thing?

Jessica Moss: Yes, absolutely and you can tie that into your geo-spatial data or if you have straight data from a database where you have the values listed, you can tie those in as well.

Greg Hughes: Very cool.

Richard Campbell: Yeah. Geo-spatial opens up huge doors there. I remember talking to, when we talked to Bob Beauchemin about this it wasn't just about dealing with map services and lat-longs but also geometry like the lots or say areas for mining, it's a really complicated chunk of equations and reporting on it's going to be a bear. It's just not an easy thing to do when you're dealing with that, a very odd set of groupings.



Jessica Moss: Absolutely. So now hopefully with the R2 version we're going to be able to see that data a lot easier.

Richard Campbell: Anything else in R2 we should know about?

Jessica Moss: We've got a whole new look and feel on new things. We went and took the report manager and made it look a lot like SharePoint so it'll be easier on a management perspective to see all of that information there which is great because it was in need of an overhaul from a view perspective.

Richard Campbell: Sure.

Jessica Moss: So those are the few other things that are included.

Richard Campbell: What is the relationship between reporting services in SharePoint, do they work and play well with each other?

Jessica Moss: They are getting better, I would say that.

Richard Campbell: Ah, you're nice, how polite of you.

Jessica Moss: There is a reporting services SharePoint integrated mode which is they tie directly together and you do most of your management and viewing in SharePoint and then there's a native mode which is, report manager is going to store it's data inside a SQL Server but you can still show it inside of a SharePoint.

Richard Campbell: Okay.

Jessica Moss: So...

Greg Hughes: Got you.

Richard Campbell: I guess the question here is, is that only used in scenarios where you have a significant SharePoint deployment already and you want to include reporting services or is this a feature that would move a customer to SharePoint because it's a better way to view reporting?

Jessica Moss: In my opinion, I would say if you do not have a SharePoint instance at this time, do not purchase it just for reporting services.

Richard Campbell: Okay.

Jessica Moss: It's not necessary.

Richard Campbell: That's fair and the standalone works just fine, it's really about dealing with existing SharePoint in your structure.

Jessica Moss: Correct.

Richard Campbell: All right.

Greg Hughes: If we're talking about SharePoint related to reporting services, are we talking about WSS or SharePoint server or are we talking about the portal, SharePoint portal?

Richard Campbell: MOSS.

Greg Hughes: Full blown product, yeah MOSS, there you go, thanks.

Jessica Moss: Oh, when you're talking about doing the integrated mode, all you need is WSS...

Greg Hughes: Okay.

Jessica Moss: To actually put that in place so that will give you that central administration aspect still so either one.

Greg Hughes: Got you, okay. Of course, that comes along with the Windows Server license so but it certainly is the, the MOSS license is a whole different deal, right?

Jessica Moss: Correct. MOSS is going to be at enterprise, all the portal and extra aspects included.

Richard Campbell: Yeah, see that whole Office element to it. It's an expensive product at that point so if you don't really need it, don't buy it.

Greg Hughes: Yeah.

Jessica Moss: Correct.

Richard Campbell: All right. Well, I think we're getting towards the end of the show here Jessica. Anything we've missed that we should let people know about?

Jessica Moss: I think we've covered a really good amount over this time period.

Richard Campbell: Absolutely.

Greg Hughes: Yeah.

Richard Campbell: How big of a role is the developer in working with reporting services, do you need them at certain places?



Jessica Moss: It depends.

Richard Campbell: Oh, nice.

Jessica Moss: I was hoping I was going to get through the whole show without saying that but I had to put it in there. It's really an organizational decision to make of how you split out who does the development versus the report writing where the business users lie.

Richard Campbell: Right.

Jessica Moss: How easily to go back and forth there. There's going to be always be a little bit but how much the developer has to be involved in reporting really depends on you organization.

Richard Campbell: Okay. There's definitely a role for the developer in reporting services is just a question of how far you want to go with that.

Jessica Moss: Exactly.

Richard Campbell: All right and we're not just talking about integration into an application but part of report building can involve devs?

Jessica Moss: Yes, mainly because and when I say there's going to be a little bit, is that if you have an entirely separate team that's building reports, invariably there's going to be a point where they're going to say this crazy calculation that I need to make, how do I do that in here and you can either write it in code inside of the report directly or try to pull that calculation out into the database layer...

Richard Campbell: Right.

Jessica Moss: So along those lines and they start getting into some of the more complex thing.

Richard Campbell: It comes down to what talent you've got in the organization, if you've got a guy whose a genius with TSQL, you could probably bury that equation inside of SQL Server but if you've got a couple of good .NET guys...

Jessica Moss: Yeah.

Richard Campbell: Maybe they could write that equation there.

Jessica Moss: Absolutely.

Richard Campbell: All right. Jessica, thanks so much for coming on the show.

Jessica Moss: You're welcome, thank you for having me.

Greg Hughes: Thanks, Jessica.

Richard Campbell: And we'll talk to you next week on RunAs Radio.