

IBM Podcast

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MATHENY: Welcome to this IBM podcast. I'm Angelique Matheny. The title for this podcast is focused on desired outcomes to build the right solution. To compete in today's economic environment and deliver superior products to your customers, software organizations have to define and manage requirements in a way that delights customers with high quality and innovation.

In order to do that, companies must build the right solution, the first time. Today's guests, Kurt Bittner, chief technical officer of the Americas with Ivar Jacobson Consulting, and author of Use Case Modeling, will talk about how to do that, how to work with stakeholders to ensure your solution focuses on desired outcomes, rather than the customer's idea of what the solution should be and how to document the solution as agreements are reached.

And I also want to introduce Theresa Kratschmer, Senior Software Engineer. Theresa joined IBM in 1996 and spent her first 10 years at T.J. Watson Research working on defect analysis, requirements and orthogonal defect classification deployment.

Theresa joined Rational where she managed the change and

release management requirements definition and management and the BuildForge design partner programs. She's currently part of the Rational marketing group where she is a solutions marketing manager for the requirements definition and management products. So Theresa and Kirt, welcome to the podcast, thanks for joining us.

BITTNER: Thank you.

KRATSCHMER: Thank you.

KRATSCHMER: Hi, Kurt, thanks for joining us today. There seems to be some confusion about the terms, requirements definition and requirements management. How would you differentiate them?

BITTNER: I'd like to think of requirements definition as related to the elicitation and identification and documentation of the requirements. So it's primarily a created activity. It tends to be more oriented towards communication and collaboration. You can think of it as the right brain kind of activity.

And the requirements definition, the requirements management refers to the prioritization, categorization and organization of the requirements. So that tends to be a bit more left brain. So it's more trying to structure the requirements, prioritize them, rank them and use that to

drive the development process.

KRATSCHMER: So I've heard you speak about holistic requirements. What are you referring to in that sense?

BITTNER: What I mean by that is that a lot of people get hung up on the actual format of the requirement. So they tend to think of requirements as being represented in use cases or in text or as prototypes or visually. But what I mean by holistic it's that it's actually all of those things, and the different techniques are useful for different kinds of information.

So user interface information tends to be very visual, but the flows of events of the use case or flows of events of the system tends to be more oriented towards text or perhaps diagrammatic in a flow diagram.

So in order to be effective at capturing the requirements and conveying them, we find that different requirements techniques are useful for different kinds of information, but you need to use all of them in a typical system.

MATHENY: So people talk a lot about problem and solution. Where exactly do requirements fit into these?

BITTNER: Well, I tend to think of requirements as being

a way of defining the solution. So what I mean by that -- and this confuses some people -- is that requirements have a particular solution in mind. And so when you talk about a system consisting of a bunch of screens and reports and flows...

There's already a solution in mind when you start talking about those things, because an alternate solution might involve a different set of screens and flows and reports and perhaps a different business process.

And so I like to focus on desired outcomes first as a way to get people to think about what's the end result that you want to achieve, and then think about different ways that you could satisfy that end result or deliver that end result. And so that may result in different solutions being proposed and analyzed and ultimately accepted or rejected.

And in a lot of cases what you do is you merge different solutions, different aspects of different solutions. And so by focusing on desired outcomes, you end up with a better understanding of what the end goal is and then you can do a better job at defining the requirements for that, that satisfies that end goal.

KRATSCHMER: Is that difficult when it comes to working with customers focusing on desired outcomes?

BITTNER: Well, the difficulty comes in is that usually the customer comes in with some particular idea of what it is they want. And they've been conditioned to ask for things like, and I want this kind of screen. I want this kind of report. I want the system to look like this.

But and so we have to retrain them to think more in terms of, what are they trying to achieve, and get them to focus on those things first. And eventually you get into what screens and reports and flows and other things the system has to do.

But at first, because we've conditioned them very effectively over the last 20 or 30 or 40 years of working with them, then they're accustomed to having to come in and essentially specify the solution already. And so sometimes you have to back them off from that a little bit and get them to think a little bit more broadly.

Sometimes they're open to that. They think that's a great idea. And other times, they think of that as being, well, why are we wasting our time talking about this, because I already know I want this report? And in fact, in many cases they don't know, they really don't know what the solution should be at first and you have to help walk them through that.

KRATSCHMER: Can you give me an example of a desired outcome or tell me a little bit how the customers' responses would be different when we're probing desired outcomes for them.

BITTNER: Well, an example that I like to think about is that the customer might initially come in and they say, they would like to have a sales report. And you could...if you go down that path and start asking them, well, what kind of information do you want on the sales report, and how do you want it sorted, and how do you want things totaled, and all that, you've sort of missed the point of asking the question of, what are you going to do with that sales report?

And so, what they're going to do with it, they might say, well, I want to look at the sales report to figure out what products are selling more effectively, and so I'd like to ultimately order more of the products that are selling more effectively and less of the ones that aren't selling. So that's one potential desired outcome.

So, in other words, understand optimal inventory levels and be able to do effective ordering is the outcome. And the sales report, it's just their conception of how they can get that information.

Now, the problem could be that what they might want to do

with the sales report has nothing to do with that. Maybe what they want the sales report to do is figure out who is the top salesman so they can give them a nice bonus. So if you don't understand what the desired outcome is, you may over engineer for something that they don't need and don't deliver something they do need.

KRATSCHMER: What are the important elements for a roadmap for building the right solution?

BITTNER: Well, I think the first thing to do is to focus on desired outcomes and getting that into your mind as a primary way of asking the right kinds of questions. But the problem is that you can't really understand all of the desired outcomes at once, and then understand the requirements, and then specify the requirements, and then build them...

Because what happens is that people don't really think about...they can't really think about everything all at once, and so they have to see a little bit and then they can respond to that and then they can give you some more feedback. So it has to be more of an iterative process.

And so, the elements would be that you have to understand desired outcomes. But then you have to be able to go through and define some solutions that might deliver those

desired outcomes and have an effective way to present back to the user, to the customer, your proposals on what the solutions might be.

And then they reflect on that, give you some feedback on that. You might understand or discover more desired outcomes. And this circles around for a while, but eventually it converges on a particular solution that needs to get built.

And then from there, you'll need to switch over and switch your hats...your hat into more of a requirements definition mode and take the results from the desired outcome exploration and the solution definition and now start flushing out the requirements more.

So you have to be able to work iteratively. You have to work with a number of techniques such as prototyping and visualization, as well as other requirements techniques like use cases, and business rules, and domain models.

And be able to have a kind of fluid facility with that so that you can help drive the discussions appropriately, and then eventually drive down into the details of something that's going to get specified and built.

KRATSCHMER: Okay. Great. I see how this will help me

build better solutions by converging on a solution over time.

BITTNER: Yes. By taking a more iterative approach, then you converge on the right solution so there's less risk overall with going off, defining a solution, building it, coming back to the user and having them say, well, that was what I asked for but that isn't what I really needed. So this gives you a way to converge upon what they actually need and then deliver it and do that the first time without a lot of excess waste.

KRATSCHMER: Okay, great. Thanks a lot, Kurt.

BITTNER: Thank you.

KRATSCHMER: Back to you, Angelique.

MATHENY: Thank you, Theresa.

You can learn more on the white paper called, Focus on Desired Outcomes to Build the Right Solution. You can also go to the product page for Rational Requirements Composer and download the trial. Theresa and Kirt, this was very informative. Thank you both for taking time out to discuss focused on desired outcomes to build the right solution. We really appreciate it.

BITTNER: You're welcome.

KRATSCHMER: You're welcome.

MATHENY: That was Rational's Theresa Kratschmer, IBM's Solutions Marketing Manager and Kurt Bittner, Chief Technical Officer for the Americas with Ivar Jacobson Consulting.

If you're interested in more podcasts like this one, and to find the white paper mentioned here, check out the Rational Talks to You Podcast page at www.ibm.com/rational/podcasts.

This has been an IBM Rational podcast. I'm Angelique Matheny. Thanks for listening. Keep tuning in as Rational Talks to You.

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