

InTech



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Part 1 of
a two-part
series

Berra: For now, I don't see plants going 100% wireless

Editor's note: *Wireless is getting quite a bit of coverage throughout the industry these days, but that isn't the only subject on Emerson Process Management President John Berra's mind. At the Emerson Process User Group meeting held in October, Berra sat down with InTech Editor Gregory Hale and talked about some of the important topics in the industry in the first part of a two-part discussion.*



InTech: Baby Boomers are getting ready to retire; how much of a problem will that pose for the industry?

Berra: First, let me say I am member of that generation, and I am not personally walking out of the industry any time soon. It is going to be a challenge as all the knowledge and experience walks out of the industry. I will also say there was a period of time during the .com 1990s where engineers coming out of school did not want to go into process-type jobs. I think there is a generation missing in there. It will be a challenge, but I think meeting the challenge will be the technology such as wireless asset optimization—the ability to have mobile workers share and leverage expertise no matter where it happens to be.

InTech: You used a word in your keynote and others have used it before and that is the word 'cool.' Is everyone just now seeing how much fun it is being in the industry?

Berra: Being an automation professional is cool. It is just that it was not all that well known just how cool it is. As a profession, where else do you get to touch so many things? It goes from the very mechanical, to the heavy-duty electro mechanical, to electronic, to software, to networking, to visual displays. Now we add the wireless dimension to things. If you are fascinated with all aspects of technology, and you want to work on something and you stand back and say 'Boy, I really made a difference here,' then automation is the way to go. In that respect, I think it is cool.

InTech: How will you be able to capture that knowledge that will be walking out the door?

Berra: Automation, from the very beginning, cut down the amount of people you needed to run a process plant. I have to be honest; I don't think all of this (knowledge) will be transferred to software. I still think there is a place for on-the-job training. Let me give an example: One of the most interesting first pieces of automation was the player piano. Did it eliminate piano players? I don't think so. If someone wanted to learn how to play the piano, they had to spend some time with someone to teach them. I think automation

will capture the performance, but not how to do the performance. So there is a place for education and training.

InTech: Do you see plants going completely wireless, or will it be a component of a manufacturer's networking philosophy?

Berra: For the foreseeable future, I do not see plants going 100% wireless. I will give you a couple of reasons for it. Number one, there are certain devices, instruments, flowmeters, that sort of thing, that by their very nature cannot be powered with batteries. So, you are going to be faced with having to get power to that device no matter what. What I see is a wireless network working hand-in-hand with a wired network. I am particularly keen on seeing Foundation Fieldbus as a wired network and wireless HART as the wireless network and whatever emerges as the standards in those areas, and I can actually see a situation where the gateway has inside it the ability to connect wired or bussed devices as well as wireless devices. We talk a bit about the way an automation project is done, and if you look at the number of measurements that are made and you count the number of control valves, there is a lot more measurements than there are control valves. That says not everything measured is controlled. So, the obvious candidate for wireless first is what can be measured, but not necessarily controlled. That is where it will go. There is a whole array of applications that are not being done anyway today; they are not wired or wireless, they are just simply not being done. So, you put those in there, and you begin to see an infrastructure where both wired and wireless are coexisting. The information is being aggregated, and you are sitting in a control room, and you actually don't know how the information is getting back to you. The real big version of your question is will there be a time when all communication will be wireless? I would say that is possible, but I do not think it is going to be very quick. I think the challenge for us is to create an architecture that encompasses all of this so they can move across, and as I said, once the information gets in, it really does not matter how it got in there.

(Next time, more wireless ... Emerson's partnership with Cisco and the relationship with IT.)