

## How RFgen Is Helping SAP Users to Customize Their Bar Coding Projects:

**An SAPtips Interview with Tom Rhoades and Robert Brice of RFgen**

*Managing Editor's Note: When you think about bar coding projects, the first assumption is that there is a steep learning curve and a lot of new technology to wrap your head around. That's why we're so pleased to have RFgen as an SAPtips software partner. RFgen's bar coding software makes customizing bar coding simple and free of the need for expensive custom programming or SAP RF experts. And if you're thinking RFID, RFgen is fully compatible with RFID protocols. And best of all, you can actually install RFgen for free and give it a test run. To give SAP users a better sense of what RFgen can do and how they are helping ERP users to optimize their bar coding processes, we sat down with two key players for RFgen: Tom Rhoades, National Sales Manager, and Robert Price, Executive Vice President (and the developer who originated the RFgen software). Our discussion provides an honest look at the options SAP customers have for bar coding solutions, and how RFgen is keeping pace with rapidly evolving RF/RFID technologies.*

**SAPtips:** Guys, thanks for joining us. Let's start by talking about the different ERP environments RFgen can be installed in.

**Tom Rhoades:** We have implemented RFgen with about twenty different ERP packages, including SAP, JD Edwards, PeopleSoft, and Oracle. With Oracle, we interface through the ODBC connection. We're a JD Edwards software partner, and our SAP integration tool is SAP certified.

**SAPtips:** How many customers are running on RFgen currently?

**Tom:** We now have over 2,500 customers running on RFgen.

**SAPtips:** When you say that a tool has been SAP certified, what does that mean to SAP users?

**Tom:** Just about anybody using SAP will not move forward with any type of SAP implementation unless it's SAP certified. Being certified basically means that RFgen has passed SAP's own tests, and that we conform to their requirements. That includes being compatible with their BAPI protocols and working properly according to SAP's rules and logic.

**SAPtips:** Tell us what a typical RFgen implementation looks like for an ERP customer. What are the stages, and how long does it take?

**Tom:** Depending on the number of transactions, an RFgen project could take anywhere from two weeks to eight weeks. The time line also depends on the number of applications the customer needs.

**SAPtips:** What is the implementation process like? Is there a lot of custom development or is it pretty much out of the box?

**Tom:** On the SAP side, the customer needs to have in-house SAP experts, which most SAP houses do. They basically need to know which BAPIs are needed for which transactions, and if they know SAP, they know that. With that knowledge, they can

take the RFgen integration tool and quickly design the application and move forward themselves.

**SAPtips:** Do you find that RFgen needs to provide SAP users with additional consulting resources to implement this solution, or is it the case where they can implement it themselves if they have the SAP talent in house?

**Robert Brice:** We look at it as a partnership. The SAP customers provide someone from their end who will put forward which BAPIs they're going to use for each transaction, or they'll provide a custom BAPI that will encapsulate some of those functions. Then we (or one of our partners) will provide the data collection expertise on how to create the process flow so that it works well in their warehouse or wireless environment. When you marry our process and data collection expertise with the client's internal ERP know-how, that's a recipe for a successful implementation.

**SAPtips:** And when you mention "partners", are you referring to a third-party consulting partner?

**Rob:** Yes – you want someone with the SAP knowledge. Some companies use their own in-house team, and some opt to pull in SAP resources from a third-party SAP consulting firm to assist with the installation process.

**SAPtips:** So how does this contrast with the installation process in a JD Edwards environment?

**Rob:** Well, in JD Edwards you can do it the same way, although we have people on staff who have JD Edwards knowledge, and we have a series of pre-written transactions that are designed to have a standard base, and then you modify it based on the classic 80/20 rule, where 80 percent of the functions are “out of the box” and 20 percent are customized.

**SAPtips:** And in the Oracle community? Are there any differences in the implementation in an Oracle scenario?

**Rob:** Currently, as Tom said, the Oracle implementations are done using the ODBC connection. Now that we’re an Oracle partner, we’re planning on releasing an Oracle-specific version of RFgen (complete with data connectors) in conjunction with the upcoming “Fusion” product release.

**SAPtips:** But in the interim, is RFgen a viable option for Oracle users?

**Rob:** Definitely. We have some people using it with Oracle. We can talk to Oracle packages, we can talk to stored procedures, and we can talk to the database. Eventually, we’ll have specific interfaces designed expressly for Oracle. The RFgen functionality is the same in all ERP environments; the only difference is the method of integration.

**SAPtips:** Rob, you were a key developer of RFgen from the beginning. Can you tell us what your vision was behind the RFgen product and what hole in the market you saw that you were hoping to fill?

**Rob:** When we first started RFgen, all of the products we saw out there took a piecemeal approach, which was: “Let’s just supplement existing tool sets, like Visual Basic or Visual C.” In many cases, these were custom envi-

ronments where you had to do the programming yourself. Everything was oriented towards a custom solution that you had to refit on your own dime for each project. What we did with RFgen is in keeping with a vision that we still have to this day: we provide you with a standard solution.

**One of the things we talk about is the “theory of sacrificed alternatives”: the idea is that the longer you spend doing one thing, the more you miss other opportunities.**

Whether you’re accessing your data source or your legacy system or your ERP products, it’s all standard and ready to go and, in most cases, it’s already been tested and deployed in thousands of RFgen locations. When you develop your applications in RFgen, it’s point-and-click and drag-and-drop. All the code has been tested and deployed already. The end result is that RFgen lets you focus on what you want to do with a bar coding solution, whereas other products make you focus on how you’re going to get the software up and running and talk to other systems in the first place. The ease of integration with RFgen allows you to focus on the business side of the equation and put the software to work for your needs.

**SAPtips:** So unlike other systems you’ve seen, you don’t have to bang your head against the wall to figure out how to get RFgen to do what you want it to do.

**Rob:** Yes, and with RFgen, it’s the 80/20 rule. RFgen provides all the base mechanics and system architecture to have a successful project, so all you have to do is worry about implementing whatever you want to do instead of having to rebuild the house from scratch. One of the things we talk about is the “theory of sacrificed alternatives.” The idea is that the longer you spend doing one thing, the more you miss other opportunities because your head’s down or you don’t have the resources to pursue them. RFgen really allows companies to leverage themselves and their people so they do more with less, and do it faster and smarter with fewer after-sale support requirements. And that’s proven out through the model. You know you’ve built a good product when you get a lot of referrals and repeat customers.

**SAPtips:** Let’s talk about SAP users and their bar coding decisions. Obviously SAP has its own RF solution,

which is commonly referred to as the SAPConsole. How does RFgen compare with the SAPConsole?

**Rob:** There's a couple of issues with SAPConsole. SAPConsole involves more targeted SAP knowledge, so your general consultant is not going to be able to go in there and make modifications or customizations. We've found that the implementation of SAPConsole is more of a niche area. We've also found that there are limitations in some of the things that SAPConsole can do. Since it's an online system, you really don't have a lot of batch capabilities as far as I know. With RFgen, you have the store-and-forward capability, you have the ability to operate online or offline, and you have the ability to easily customize what you want to do. We think those are a few of the things that really set us apart from SAPConsole.

Every time that we've won a deal in SAP, the bottom line is that SAPConsole was considered. In some cases, they took the time horizon into account. With SAP, there's a number of factors that go into this kind of decision, including what their long-term costs of ownership would be over a three or four year period. Once they take all those facts into consideration, RFgen usually ends up looking pretty darn good.

**SAPtips:** And one of the major advantages of RFgen is that because of the ease of integration, a general SAP consultant without a whole lot of specific RF knowledge can go in there and get RFgen up and running easily.

**Rob:** That's exactly what we've heard so far.

**SAPtips:** We can verify your point of view from this angle: in all our years of SAP recruiting, we can vouch that the RF skill set is really diffi-

cult to come by. Generally speaking, to implement SAPConsole, not only do you need an RF background, but you need to have strong Warehouse Management configuration experience and some skills with other SAP Logistics components as well. It's a pretty rare and expensive skill set. I'm not surprised that SAP users would take that into account when making a decision on RFgen.

**Tom:** One of other things to consider is that typically with the SAPConsole, SAP gives it to you because it comes with R/3. SAP essentially says, "This is the SAPConsole, this is what it does, and this is how it works." If you say, "Well, I want to do it this way or customize it for this situation," the problem is that there's no real way of changing it without expensive customization. With RFgen, you can set it up anyway you want to.

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**Rob:** From what I've seen, SAPConsole is configurable to a degree, and there are other packages out there that you can bolt onto SAPConsole to expand the configuration options, but the real issue comes down to: "What are the skill sets needed to implement this, and what is it going to cost you in the long term?" And the other issue derives from what Tom just said: if you invest in customizing SAPConsole, what happens down the road when you go through an upgrade, and how will modifying it affect your support costs?

**SAPtips:** Can you give us a "before and after" snapshot for an SAP customer that implemented RFgen?

**Rob:** It's really the same picture for all of our customers: you have a goal to collect your bar coding data and get it into your ERP system. Most ERP systems need a large volume of data input to operate properly, and you need to make sure that's done quickly and accurately. The real issue is data input and collection: either you've got people who are keying the orders in from terminals all over the place, or maybe you're collecting data at the point of operation but not integrating it into your ERP system. The bottom line is that companies that implement RFgen have obvious inefficiencies that they believe are costing them a lot of money. RFgen facilitates this kind of solution. As far as SAP goes, there's not any unique aspects to implementing RFgen on the SAP side – although we've noticed that SAP customers, who are used to spending \*a lot\* of money on software, are pleased by how affordable the RFgen solution is.

**SAPtips:** So the end result of an RFgen implementation is that a lot of the manual entry tasks are eliminated, and you're starting to move towards a real-time awareness of what's going on with any items you're tracking through your bar coding process.

**Rob:** That's exactly it. You simplify the process and you take the time delay out of the equation. Using our transaction management functionality, if the system is unavailable, you can break the user away from having to wait until the process occurs in SAP. That's also a factor. You can thread the input so that instead of having 200 handhelds that are all banging away as users on your system, you just funnel it through our transaction management system and everything gets updated in what we call "near real-time." It's on a FIFO basis, not a queue, and it processes as fast as it can. Since you've only got one system hooked into SAP, you don't have all that extra overhead on your box. For a big implementation, if you want to throw 200 users on it, just to perform two or three types of basic functions, you have to look at how that's going to impact performance on all of your processes.

**SAPtips:** Rob, honest question: when you first conceived of this product, did you imagine that this area was going to be as hot as it is today, with all the buzz surrounding RFID?

**Rob:** A number of years ago, we looked at providing some extra RFID interfaces. But at the time, we found that there were a lot of problems with RFID in terms of interoperability and the failure to adopt any clear standards. The RFID market has certainly come a long way, but in all honesty, I really don't see this year as being the breakout year for RFID. I see a lot of pilots, but not full-scale roll-outs. If these pilots actually succeed this year, that's really going to be the news. There are still a lot of issues. In my opinion, people who think RFID is going to replace bar coding anytime soon are off the mark. RFID still has pretty high failure-to-read rates and a number of other limitations. These are all things that are going to be addressed, but the technology still has to improve to where you get the

same accuracy you can get with traditional bar coding.

**SAPtips:** Not to mention the cost issues....

**Rob:** Yes, cost is still a barrier, but that will obviously come down with adoption. Once you get the economies of scale going, then everything comes down to commodity pricing. But it's important to note that RFgen is already positioned for the RFID market. We have connector methods that are available for RFID; you can use RFID with our graphical client and we have projects of this type underway. We also have the ability to interface with PLC, as well as stand-alone or fixed-station RFID readers. So RFgen is positioned to be an important part of these "next generation" solutions as they get rolled out.

**SAPtips:** With RFID, despite the buzz, right now most of the companies moving forward are required to do so by Walmart-type mandates. But it sounds like from what you're saying, if you're an ERP user looking at RFgen, if you're thinking about moving into RFID in the next year or two or three, there's going to be a lot of compatibility with RFgen, no matter which direction you pursue.

**Rob:** That's correct. Another initiative we have going now, with some active installations overseas, is coupling RFgen with voice. So not only can you use RFgen to design the screens and have connectivity to your back-end systems, you can also do voice input to RFgen instead of bar code. Our vision is heavily impacted by our customers and what they want from us.

**SAPtips:** Are there other plans for RFgen you're excited about?

**Rob:** Yes, we're working on enhancements to our mobile and batch technologies. Companies have also

requested the ability to transfer data via GSM and GPRS, and we already have prototypes for those. We're even looking at an open source initiative for our transaction suites, where companies could come in on a subscription basis and get RFgen for SAP and get an open source license to all the SAP transactions we've developed. So those are some of the initiatives we have on the horizon. And of course, we're always looking at developing connectors for other ERP systems such as Axapta and Navision.

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**SAPtips:** Tell us about the JD Edwards and Oracle environments. Do you have a situation similar to SAP, where JD Edwards and Oracle have an SAPConsole type of solution customers are also considering?

**Rob:** On the JD Edwards side, there is no SAPConsole-type offering, so any JD Edwards customer looking at bar coding is considering third-party solutions. Oracle does have its own bar coding product and its own Telnet server with some built-in transactions for it. The issue there is that Telnet is not necessarily what people really like. I hate to say it, but sex does sell. If you look at something that's in color, with sculpted GUI and push button capability, and you compare that to a green screen, there's really no comparison.

**SAPtips:** True, and it's not just about looking good. If users don't like using the system and if they can't navigate it easily, then your installation will not be effective. Guys, thanks a lot for your time today on this interview. I think it will be of real interest to SAP users. Do you have any final thoughts on RFgen you'd like to share with our readers?

**Rob:** The real key is that RFgen is a system that is designed specifically for mobile and data collection, and it's certified for SAP. It's easy to customize, it's a proven technology that's used by well over 50 of the Fortune 100 on every continent on the planet other than Antarctica, and it has a good reputation. The other great thing about RFgen is that you can download it and try it before you buy it. A lot of other solutions aren't geared to allow you to do that. But with RFgen, you can download it off the Internet and connect it to SAP yourself, and you can be up and running in about 15 minutes. You'll get an immediate sense of how the connectivity works and how easy it is to set up.

**Tom:** We enjoyed this opportunity and look forward to hearing from SAPtips readers who have questions about what RFgen can do for them.

**Editor's Note:** for more information on RFgen, including live product demonstrations, contact Frank Genevieve, ERPtips Software Sales, at [Frank.Genevieve@ERPtips.com](mailto:Frank.Genevieve@ERPtips.com), or by phone at (518) 928 8561.

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