

SAP partner pmc America on the way to steampunk and BTP

# The Journey is the Destination



The SAP Special Expertise and Solution Partner pmc in the USA offers consulting and customized solutions that improve the efficiency, profitability, and adaptability of automotive suppliers and component manufacturers—an interview about BTP, Steampunk and Abap RAP.

**W**ith pmc America President and CEO Heiko Edelmann, E3 editor-in-chief Peter Färbinger conducted the following interview. Pmc provides end-to-end software solutions that support lean principles and enable organizations to immediately improve their business processes and gain competitive advantage. Pmc maximizes business success through a combination of specialized consultants, methodologies, SW tools, and a comprehensive portfolio of enterprise software solutions for the automotive and manufacturing industries. These offerings cover all phases of the software solution lifecycle, from planning to creation, customizing and operation. The solutions and services from pmc's solutions and services have been proven to improve the efficiency, profitability, and adaptability of companies.

**Dear Mr. Edelmann, which languages and IT tools have you used in the past to carry out necessary adaptations, extensions, and modifications for SAP customers?**

**Heiko Edelmann, pmc President and CEO:** Hello Mr. Färbinger, thank you in advance for the opportunity to share our many years of SAP implementation and development experience in the automotive industry with our peers and your readers through the E3 magazine. As our main focus is the global automotive supply industry, we have developed many high-performance add-ons in the areas of customer processes, EDI process logic for customer processes, RF scanning automation, labeling and end-user effectiveness and optimization; thus, only a handful of tools are eligible. The premise is always the same—add-ons that run directly in SAP are developed with SAP standard tools to offer the best possible performance

and a risk-free update and upgrade—as they are modification-free. We have thus specialized in the following tools to implement the best possible solution for ECC, on-prem, private and public cloud customers: Abap, Abap RAP, i.e. RESTful Application Programming, UI5, i.e. Fiori, PDF and ITS mobile. These tools can easily cover 90 percent of requirements.

**This also gave rise to many Abap modifications in the Z Namespace. Will this intellectual property be lost during an S/4 conversion?**

**Edelmann:** In general, we see a relatively large number of developments among our ERP/ECC customers that should not be converted. Many of these developments are actually no longer up-to-date, as internal business processes have evolved or the SAP software now offers many more functiona-



lities. It is therefore extremely important to differentiate which developments actually still represent IP or are already legacy code that you no longer want to have.

#### And what about true intellectual property?

**Edlmann:** In terms of IP loss during a migration, it is necessary to differentiate between the private and public cloud. When migrating from SAP ERP/ECC to the private cloud, no IP is actually lost—SAP's migration tool is truly great, and you only need to make a few changes to the code and then it runs perfectly again in the private cloud.

#### And in the public cloud?

**Edlmann:** The situation is somewhat different with the public cloud, as the underlying development platform, CAP or RAP, has a completely different structure. I would describe this migration more as an evolution. We are taking all the concepts of our software solutions and applying the Abap RAP development model, Abap RESTful Application Programming—this means we can copy parts of the code over one-to-one, but it remains a new development. As we have been developing in the public cloud for over a year now, this has become second nature for us, even if it was admittedly a huge paradigm shift for us. But the real benefit is a

future ERP system that is almost custom code-free and still offers additional functions—which was quite painful for us for the first time, but in the long-term benefits our customers.

#### As an SAP partner, how will you carry out future modifications in an S/4 system?

##### With which languages and tools?

**Edlmann:** We will still stay true to our DNA and mainly use Abap and new Abap languages, such as Abap RAP. It is possible to retrain our existing Abap software engineers to Abap RAP, although this is not the easiest thing to do. New hires mainly have a web development background, which makes it easier to understand and apply the Abap RAP concept.

#### So are you running on two tracks?

**Edlmann:** Yes, S/4 Hana On-prem and Private Cloud with Abap and BTP, i.e. classic Abap, Abap RAP, and UI 5; S/4 Hana Public Cloud with Abap RAP in the Public Cloud, i.e. Embedded Steampunk and on BTP, Business Technology Platform, with Steampunk. We have a pragmatic approach for the public cloud: BTP and Steampunk are our go-to platform, for high-performance functionalities we use Embedded Steampunk.

#### What are the challenges, and do you have to differentiate between on-prem and cloud in your work?

**Edlmann:** They really are two different worlds, even if the underlying ERP has similar functions and front ends. Since we as pmc America pursue a so-called hybrid model—that is, we expect that our future customers may use an on-prem and a public cloud ERP—the software solutions must be designed in such a way that they can run either in a hybrid or a pure public cloud model. None of our customers will accept two different EDI solutions from us just because they have a hybrid ERP landscape. This means that we put a lot of thought into it and hold whiteboard sessions with software engineers and consultants before we develop a single line of code—this gives the topic of design thinking a completely different weight and significance.

#### In which industries are you active, and what are the typical modification requests SAP customers make?

**Edlmann:** Our customers mainly come from the global automotive supplier industry with a focus on North America and Europe. Customer satisfaction plays an extremely important role for the supplier industry. Therefore, most modification requests are in the area of customer supply chain.

What do we mean by that? Many customers have improved their processes with the help of IT in order to increasingly achieve the ultimate goal of “Lot size of 1”. For our customers, this means that although OEM customer requirements are still transmitted via EDI, the underlying processes and master data are becoming so complex that there is a considerable need for software solutions.

#### Where do these challenges apply?

**Edlmann:** This then extends relatively quickly into production—from planning to execution—and the RF scanning and labeling functions required for this. This can take on such proportions that there are different processes from consignee to consignee. Every optimization at an OEM customer results in an immediate need for development at the underlying suppliers—we see this very clearly at the Japanese OEMs Honda and Toyota.

#### To what extent is the SAP specification of a clean core a challenge or helpful?

**Edlmann:** The clean core is definitely a technical challenge and at the same time a customer necessity if you don't want to tackle a massive ERP project every ten to fifteen years. The technical challenge is more or less that you can no longer just go ahead and program. It starts with the fact that the SAP consultant must have a certain level of specialist knowledge in order to understand the requirements precisely and provide the development team with precise specifications. These specifications have to be broken down into small building blocks by the development team so that they fit into the new Abap RAP, i.e. Steampunk.

#### A paradigm shift?

**Edlmann:** The old days of imprecise specifications and simply programming at random with a half-trained developer team that only “knows how to code” are a thing of the past! Some rethinking is required—consulting must understand development and vice versa, i.e. the skill set of both sides must change. We call this “business process consulting”, the processes must be understood and rethought so that they make sense for the end user and can be implemented accordingly.

#### How do you access data on Hana? Do you use APIs, SQL commands or even Hana SQL language extensions and function calls?

**Edlmann:** Data is the be-all and end-all of every ERP system—without data, there are no processes. Of course, this is a sore subject in a public cloud environment, as data is immediately associated with security. So





it's only logical that it's not so easy to access master and transactional data at the moment. We are currently using released APIs or our own APIs to access this data for our software solutions on the BTP. The number of released CDS views is also constantly growing, which gives us another way of accessing the relevant data.

#### Are there alternatives?

**Edelmann:** Yes, as this is far from sufficient, we have created "Custom Business Objects"—i.e. our own customer tables—as a workaround, which contain special master data that is in tables that have not yet been released. At the moment, this means double master data maintenance, but if programmed correctly, this can be changed relatively easily later when the tables are released. I see this as a natural evolution and compare it with the situation in R/3 and ERP/ECC, when lots of tables and functions were added and customer programs had to be changed accordingly. It goes back to the previous topic that you can no longer program blindly.

#### How would you subjectively categorize the function of the SAP Business Technology Platform? A tool for S/4 success or a long-term SAP strategy?

**Edelmann:** I have a clear opinion on that! Definitely a long-term SAP strategy. Without a tool like BTP, the goal of a clean core would simply not be achievable. SAP itself uses BTP for specific solutions, such as credit note procedures or packaging management. I think the special thing about BTP is the relatively simple integration with public and private clouds. BTP is no longer portrayed as a "jack of all trades". There was a time when it looked like—at least to me—that BTP wanted to compete with Microsoft Azure functions. That no longer seems to be the case; we use Azure Logic apps together with BTP and Public Cloud. The Abap RAP environment does the rest to ensure that BTP provides a very strong, easy to integrate development tool for its customers.

#### Can the embedded Abap—Steampunk—on the BTP be a similar success as Abap under R/3 and ECC?

**Edelmann:** We have been developing with Steampunk and Embedded Steampunk for a good eleven months. As is my nature, I was a bit critical as to whether it would all work smoothly. We definitely had our initial difficulties—but as I said before, they were more or less on the consulting side, presenting the requirements in clear development steps. The development teams "struggled" with Abap RAP in the beginning as it is a very restrictive language. Ho-

wever, the more we converted our existing software portfolio, the easier it became—now, after almost a year of development, I have to say that our teams have gotten used to it and there are actually no more surprises or questions being asked, such as: why can't we do that here, can we do it in S/4? It was definitely a very steep learning curve, but once you're there, it's "development as before".

#### Will it be a similar success to R/3 Abap and ERP/ECC—honestly?

**Edelmann:** That depends 100 percent on the SAP partners, whether they are willing to take the step that we have taken! It starts with rethinking on the consulting side—if that happens, my opinion is: yes, it will be a similar success.

#### Can you estimate whether BTP will be a home for S/4 modifications or the platform for a composable ERP, i.e. an S/4 successor?

**Edelmann:** It's difficult to say, but the crystal ball in my office says no. The topic of "holistic, integrated, and automated ERP business processes" is simply too complicated to replicate easily on BTP. I see BTP as the home of customer-specific IP. Customers who introduce ERP because they want to generate added value and differentiate themselves from their competitors can build their IP, their "secret sauce" as it is so beautifully called in American, on BTP, away from the eyes of their competitors, and expand it at any time.

Thank you for the interview.

