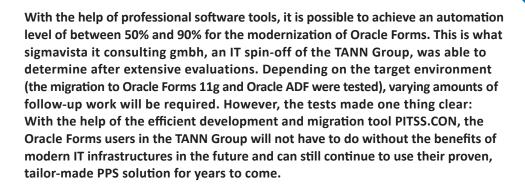# Modernization made easy

## Migrating from Oracle Forms to ADF is a breeze with PITSS.CON

*"A lot of people felt Oracle ADF was the best choice. The Java-based development framework is state-of-the-art and would ensure that our PPS application is future proof for years to come. The only problem was that we simply thought it would be too difficult to migrate the PPS solution to the new platform. The tests with PITSS.CON showed us otherwise!"*

*Ronny Fries, Application Engineer, sigmavista IT consulting gmbh*

**With the help of professional software tools, it is possible to achieve an automation level of between 50% and 90% for the modernization of Oracle Forms. This is what sigmavista it consulting gmbh, an IT spin-off of the TANN Group, was able to determine after extensive evaluations. Depending on the target environment (the migration to Oracle Forms 11g and Oracle ADF were tested), varying amounts of follow-up work will be required. However, the tests made one thing clear: With the help of the efficient development and migration tool PITSS.CON, the Oracle Forms users in the TANN Group will not have to do without the benefits of modern IT infrastructures in the future and can still continue to use their proven, tailor-made PPS solution for years to come.**

Many companies that in recent years, or even decades, have invested considerable effort into implementing company-critical applications based on Oracle Forms are now facing a similar dilemma. The application is virtually perfectly suited for the functional requirements of each company-specific business process, but due to its "historical" development it exhibits a wide range of problems in terms of maintenance and further development.

High complexity, complicated expandability, difficult integration with other systems and limited use of new basic technologies are just a few key words to describe such an environment. Almost every development team has to struggle with these or similar challenges. The introduction of standard solutions is not a viable alternative for many because the users do not want to give up the familiar, functional comfort provided by a company-specific solution that has been refined over decades.

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**Modernization yes, but where to?**

The solution is to modernize the existing system, but that is only economically feasible if it can be implemented with a high degree of automation. In order to realistically test exactly how much automation is possible, sigmavista opted for comprehensive migration tests based on PITSS.CON, which has been used by the TANN Group since 2007 for the optimization of the development environment and the lifecycle management of the Oracle-based PPS application.

300 users in Traun, and a total of 700 users from locations around the globe in England, Russia and the Philippines all access the highly specialized PPS solution of the TANN Group. Much of the application is based on the time-tested Forms/Reports technology. A small part has already been implemented using the Java-based Oracle Application Development Framework (Oracle ADF).

With around 350 Forms and 150 Reports modules, 25 PLL libraries and countless function modules as well as 2,600 database objects, this solution now encompasses several million lines of code. A complete migration to a new Forms version, or in particular to the new development paradigm in Oracle ADF, is therefore not only associated with considerable effort, but also a number of risks. It is absolutely imperative that the migration does not lead to any production losses. It is no wonder that companies think twice before taking this step.

"We are, or were, faced with a strategic platform decision. Which direction do we want to go? Continue on with Forms and Reports or make a substantial change towards ADF, which is already used in several areas of the PPS application," explains Ronny Fries, Application Engineer at sigmavista, describing the starting position. "A lot of people felt Oracle ADF was the best choice. The Java-based development framework is state-of-the-art and would ensure that our PPS application is future proof for years to come. The only problem was that we simply thought it would be too difficult to migrate the PPS solution to the new platform. The tests with PITSS.CON showed us otherwise!"

**Migration comparison as a basis for decision-making**

We began the tests in 2012 with a migration from Forms 6i to Forms 11g. After a preparation workshop together with PITSS, in which the most important functions and procedures were discussed, it was possible to migrate the entire application to what was then the most recent version of Forms within just two weeks.

"It was really impressive. 90% of the modules were migrated automatically with PITSS.CON, in other words they were fully executable. It was only necessary to manually adapt 10% of the modules," says Fries summarizing the results of the first phase. "We were curious to see how the migration to ADF proceeded in comparison."

The test migration to Oracle ADF was, as expected, a little more complicated, but much less so than initially feared. After analyzing the Forms modules, the entire business logic was first moved into the database with the help of PITSS.CON.

Manual intervention was unavoidable here, but a majority of the required activities could be automated. Finally, the necessary ADF business components were generated using the database tables and the Forms interface components were translated to ADF.

*"It was really impressive. 90% of the modules were migrated automatically with PITSS.CON, in other words they were fully executable."*

*Ronny Fries*

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"A surprisingly low amount of follow-up work was needed. Approximately 20% of the master data modules  and 50% of the highly complex modules required follow-up work. That said, most of this effort actually went into integrating the migrated modules into our existing ADF application," Ronny Fries explains, clearly pleased.

"The tests have clearly shown that it is indeed possible to upgrade from the old to the new technology world with a relatively manageable amount of effort. This made the decision for Oracle ADF much easier for us and we can now carry out the migration in the foreseeable future."

**PITSS.CON - more than just a migration tool**

Since 2007, PITSS.CON has successfully established itself in the TANN Group as the perfect complement to the Oracle-based development environment. Originally licensed in order to simplify the handling for the software development and maintenance of the complex Forms application, it now covers the entire lifecycle in the development at the TANN Group and now also at sigmavista.

"Searching numerous Forms modules for something efficiently without tools is very tedious because they are only in binary code and can only be searched individually using the Forms Builder", says Ronny Fries describing the initial position that led to the use of PITSS.CON. "The convenient search for functions or features, the application analysis and the clear presentation of cross-module dependencies were our original requirements for a tool to increase the quality and efficiency of our development and to increase the maintainability of the application."

What functionalities does PITSS.CON provide with the push of on a button? When asked about a typical example, Ronny Fries points out the work order number, which had maxed out its five-digit limit.

With just a few mouse clicks, PITSS.CON provides an analysis of where adjustments have to be made, where dependencies exist and what functions, database objects, PL/SQL libraries, Forms and Reports are affected by the planned expansion. And the information is guaranteed to be correct. Performing such a task manually would take hours, if not days, and it would still be impossible to be 100% sure that every affected instance of the field has really been updated.

"It is obvious that this alone makes the development easier by providing a better overview and keeping errors to a minimum. You also only have to open just one tool to search all the development objects. I would say that PITSS.CON has increased our productivity in development alone by 20% to 30%."

To further improve the development, sigmavista also uses PITSS.CON for the lifecycle management of the multilingual PPC application and also implements the entire localization with the Unicode-capable platform.

"We have now installed almost all the PITSS.CON modules and are gradually expanding our use of the platform. We are continually working to optimize the development process. With PITSS.CON we have a platform that enables us to successively improve our development," says Ronny Fries, summing up the benefits.

*"I would say that PITSS.CON has increased our productivity in development alone by 20% to 30%."*

*Ronny Fries*

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**PITSS.CON - door opener for new customer business**

PITSS.CON offers IT consulting companies further benefits in addition to those of the classic user, namely potential competitive advantages. sigmavista it consulting gmbh is a very young company, yet we have years of experience. The company was formed as a spin-off of the IT department of the TANN Group in October 2012. The team of currently 16 employees headquartered in Traun (Upper Austria) offers services in the areas of IT infrastructure, software development and IT project management.

In addition to international experience from the comprehensive IT support of a world leading manufacturing company, our employees have extensive expertise in the use of server technologies, ERP systems and the range of Oracle products. This includes the Oracle database as well as various components of Oracle Fusion Middleware, such as Forms, Reports, ADF or Application Server. For several years now, PITSS.CON has also belonged to the experience spectrum of our team, who manages the PPS solution for the TANN Group.

Ronny Fries, who has been a member of our team for seven years, already worked in his previous position with solutions from PITSS that are now used in over 1,000 companies around the world: "I can't imagine Forms development without PITSS.CON and also believe the product provides considerable potential for advancing our business with new customers. In Austria, countless Oracle Forms applications are in use. Modernization, upgrades to new versions of Forms or migration to ADF or the JAVA world may be an important issue for many companies in the future. For us as a consulting provider, supporting these businesses in implementing the necessary measures with the help of PITSS.CON in a fraction of the time normally required is an attractive USP over other service providers."

*"I can't imagine Forms development without PITSS.CON and also believe the product provides considerable potential for advancing our business with new customers."*

*Ronny Fries*

**About the TANN Group**
The companies of the TANN Group design and produce cigarette tipping paper for all the major cigarette manufacturers. The global market leader has nine production facilities worldwide in Austria, England, Germany, Canada, Colombia, the Philippines, China and Russia. The company was founded in 1962 and has approximately 1,200 employees worldwide, with around 490 employees working at the headquarters in Traun.

Industry: Industrial Manufacturing
**www.tanngroup.com**

**About sigmavista it consulting gmbh**
sigmavista it consulting, the IT spin-off of the TANN Group, is a provider of professional IT solutions for the sustainable support of business processes for domestic and international companies. Based on years of experience in the operation of server systems and the development of custom software products, they offer customers IT solutions tailored to their specific needs.

Industry: Professional IT Services
**www.sigmavista.com**

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**The Highlights at a Glance**

- Safeguarding of the strategic decision for a future development platform

- Tool-supported upgrade of Oracle Forms with 90% automation

- Tool-supported migration from Oracle Forms to Oracle ADF with 50% to 80% automation

- Estimated productivity increase in development and maintenance of 20% to 30%

- Improvement in quality by avoiding errors through the automation of various development activities

- Support for the entire lifecycle management of the Oracle based PPS solution

- Protection of investment with Oracle as a strategic partner

- Implementation of Oracle ADF, a pioneering technology

**professional It software & services** **pitss**®

PITSS is the leading provider of software & services for modernizing and effectively managing Oracle applications. The PITSS Group was established in 1999 and has gained international recognition with over 1,000 customers and a multitude of successful Oracle projects. PITSS is an Oracle Gold partner and, as a member of the Oracle Modernization Alliance (OMA), is the only Oracle Forms Migration partner for automated migrations. With sites in Stuttgart (HQ), Wolfratshausen near Munich, Bielefeld (Germany), Milton Keynes (UK) and Troy (USA) as well as certified international partners, the company successfully provides support for IT projects of medium sized companies, large enterprises and public contractors across the globe.

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