



**Forms migration of
a complex insurance
solution without
code freeze at the
Versicherungskammer
Bayern Group (VKB)**

“Thanks to the automation of the migration using PITSS.CON, we were considerably faster in converting to Oracle WebForms which enabled us to focus on the more critical problems in this project” – *IT Graduate Martin Hackmann, Director Project and Architecture Management, Inverso GmbH, a VKB Group company*

Converting a business-critical core application, which has been developed for years and runs smoothly and virtually error free, to a new technology base is not a task that people in IT departments are happy to take on. The technology migration does not yield to any immediate benefits in the first stage, but frequently triggers challenges. The larger and more complex the system, the higher the expense. In most cases the further functional development is greatly hindered and errors cannot be prevented when performing even the most in-depth tests. No wonder most companies shy away from such an approach and delay these conversions for as long as reasonably possible. However, if the manufacturer abandons the support for a technology, the time has come to take action.

The VKB Group was confronted with this situation. Their inventory management system, the Insurance Company Information System (ICIS), which was implemented in the 1990s and has been further developed for an Oracle Database 9i with PL/SQL and Oracle Forms since 2001, had to be modernized urgently. This meant migrating three different system lines in ICIS to an Oracle Database 11g with WebForms.

The Oracle Forms development platform PITSS.CON enabled a smooth transition to the new technology without interrupting the productive operation. Thanks to the automation of all routine tasks of the migration, the initially estimated migration costs were reduced to 25 percent. Most important the migration did not interfere with the further development and maintenance of the application. Three new main releases were released in parallel to the migration project without having a great effect on the migration effort and cost.

Complex conversion project with critical challenges

The Insurance Company Information System (ICIS) is the only multi-sector and complete inventory management system for all insurance sectors. ICIS manages all customer data, the product portfolio, the contract inventory and all damage or service claims. Several functional modules, components and program modules provide a flexible and comfortable handling.

The solution currently being used by the VKB Group, which was implemented in the 1990s by a systems house and then enhanced by a developer community, has been operated and further developed by Inverso GmbH independently since 2009. Three different system lines



Customer:

Versicherungskammer Bayern Group (VKB)

Munich, Germany

www.vkb.de

Sector: Financial services

Premium income: EUR 6.64 billion (2011)

Employees: 8,507 (2011)



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Director Project and
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of the software are used in the company. Each system line consists of around 600 Forms masks, which have common code components, but also have considerable differences, meaning that the planned conversion of the Oracle Database 9i to 11g actually had to be performed for three applications.

In order to optimize costs overall, it was decided to update the database and the development environment for the application in one step, whereby the database conversion alone had already proven to be a Herculean task. The conversion to Oracle WebForms meant that all dialogs had to be adapted in order to work as normal. "Additionally," a complete architectural swing accompanied this change in technology since there was a conversion from two-tier architecture to three-tier architecture using Oracle WebLogic Server.

Automation is a great asset

"The testing efforts in such a project are considerable. However, since we had to test all the applications anyway, converting at the same time was not a factor to be underestimated in saving costs. The level of automation of the migration was considerable, however. And PITSS.CON supported us with this sustainably. For the Forms conversion, the costs were reduced to approximately 25 percent of the originally estimated volume," says Martin Hackmann.

PITSS.CON is a high-performance development platform. Using it Oracle Forms applications can be analyzed, migrated, developed and managed quickly and cheaply. The module PITSS.CON Migration, which was used by the VKB Group, gave a high level of automation to the project. Thanks to the integrated migration analysis, the costs soon became clear, meaning that a complete conversion from ICIS to Oracle WebForms could be performed as a fixed-price project, which minimized the risks for the VKB Group.

The PITSS.CON migration expert system efficiently converted Oracle Forms to Oracle WebForms using predefined templates. Using the structures from the configuration management system, Inverso ensured that the common features of the three different ICIS system lines were not migrated several times. After transferring the whole source code to PITSS.CON, it was checked based on the rules and implemented in the new program version fully automatically on the basis of the integrated system of rules.

Martin Hackmann was very happy with the result: "With PITSS.CON, we can cover the large number of dialogs. Most masks were implemented extremely quickly and almost everything worked right away. We were able to concentrate on the typical exceptions. Whether layout optimization or reimplementation of the navigation components: You must intervene manually here; this cannot be displayed sensibly using a tool."

Smooth migration in parallel with normal line development within twelve months

One distinctive feature in the course of the project was the fact that all three system lines could be migrated almost without "frozen time," which meant that important new user

requirements could be met timely. Three major releases of ICIS, in which new functions were implemented successively, were released within the VKB Group each year. This further development could not be hindered since ICIS supports critical business processes of the VKB Group, which have to be constantly optimized to provide better service and cost reductions.

Thanks to the timestamp-based comparison functionality integrated into PITSS.CON, it was always possible to automatically determine which code components had been changed since the last release on the respective application at time X. Therefore, the source code was transferred to PITSS.CON in the course of the ICIS migration not just once, but for all releases made in 2011. As soon as a line release was approved, the changes made within it were synchronized, appropriately migrated and subjected to tests. Therefore, the migration was based upon the respective current development state so that longer failures could be completely avoided thanks to PITSS.CON – which impressed Martin Hackmann also very much.

The first major releases of the ICIS system lines in 2011 formed the basis of the start of the project; the final synchronization or productive commissioning was then carried out as planned with the first major releases of the following year.

Why Oracle?

Since ICIS has always been based on an Oracle platform, the VKB Group had no alternative. Meanwhile, nobody wants to dispense with the stability and performance of the Oracle platform any more. Thanks to the migration to Oracle WebForms, Oracle WebLogic Server and the Oracle Database 11g, the company now has an up-to-date infrastructure for the operation of ICIS again. At the same time, the application was converted to a modern three-tier-architecture so that people are technically well positioned for further development in future and the investment security remains guaranteed in the long-term.

Why PITSS?

From the point of view of Inverso, collaboration with Oracle Partner PITSS within the framework of the project provided three considerable advantages: The automation of the migration process with the help of PITSS.CON, employees who are proficient in using the tool and profound experiences with the migration of other ICIS systems from the original provider of ICIS as well as from other users.

“To keep up-to-date in terms of technology, we had to set up a project. Our aim was to see this through with as little expense as possible without restricting the day-to-day business and the further development of ICIS. PITSS has contributed significantly here with PITSS.CON. The project was concluded on schedule and within the budget; we can recommend PITSS with full conviction for similar projects”, says Martin Hackmann, summarizing his experiences.

Oracle Produkte & Services:

- Oracle Database Enterprise Edition 11g
- Oracle Forms
- Oracle WebForms
- Oracle Reports
- Oracle WebLogic Server

Benefits:

- Automation of Forms migration using tool-supported conversion of dialogs from Oracle Forms to Oracle WebForms
- Around 75 percent migration cost savings for Forms
- Migration without causing problems for the ongoing development – three major releases of the three different ICIS system lines were converted in parallel with the migration
- Commissioning of three ICIS system lines on a future-oriented infrastructure with long-term secured support



Partner:

PITSS GmbH

www.pitss.com

**About the Versicherungskammer Bayern Group (VKB):**

The VKB Group is part of the Sparkasse financial group and combines 15 individual companies. With a contribution volume of EUR 6.64 billion, it is one of the ten largest primary insurers in Germany and is the largest public insurer nationwide. The VKB Group possesses all sectors in the insurance industry. More than three million insurance and service claims are processed annually; around EUR 23.5 million is paid out to insurance services daily. The top service of the group was characterized in the Service Test by TÜV Saarland in 2012 repeatedly on the part of the customers with the grade "GOOD" (2.1).

About Inverso:

Inverso has been successfully active as a software and consulting house in the VKB Group and for other insurance customers since 1997. The core competence of Inverso is the development, introduction and maintenance of customer-oriented IT solutions in the insurance market. Inverso is specialized in modern software technologies and front-end solutions. Since 2007, Inverso has taken over the handling and further development of the ICIS platform for the system line of three companies for the VKB Group. Inverso is recognized in the market as an ICIS Oracle specialist and also supports other ICIS users here.

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