



# CASE STUDY

ONE OF GERMANY'S LARGEST IBM i DEVELOPMENT ORGANISATIONS MIGRATES FROM TRADITIONAL CHANGE MANAGEMENT PROCESSES TO ARCAD FOR DEVOPS TO ACHIEVE ITS MODERNISATION GOALS AND PREPARE ITS DEVELOPMENT TEAM AND PROCESSES FOR THE FUTURE.



## THE CUSTOMER

Rhenag Rheinische Energie AG - founded in Cologne in 1872 - is one of the oldest German utility companies. From the company's original beginnings involving the creation of a modern supply infrastructure up to today's energy transition technology, the business of energy supply has changed fundamentally and Rhenag has continually evolved alongside these changes. By continually innovating, Rhenag pursues a unique approach, combining the business of a modern regional utility plus the activities of a nationwide municipal utility cooperation partner from a single supplier. The Rhenag IT business model is important to note.

As a software-as-a-service (SaaS) provider, the company provides the industry solution lima®, which was developed for the needs of modern energy supply companies.

By continually and consistently adapting to their client's unique requirements and processes. Rhenag has developed its service offering over many decades and hosts the core of its applications on one of the largest IBM i infrastructure landscapes in Germany. ♦



## APPLICATION LANDSCAPE

The heart of the Rhenag application suite lima® is the core billing system. The company's commitment to the IBM i as a strategic platform has been confirmed over many years. The IBM i has proven to be a reliable, powerful and secure system.

Now, the application suite is being modernized at several levels and has been transformed into an open, microservices-based architecture with a flexible data model and improved modern user experience at the cutting edge of technology.

The goal of this modernization is to ensure that Rhenag can address new customer requirements and future "business value" - especially in the context of automation and digital transformation of energy industry processes where rapid delivery to customers and users is essential.

The need for faster development cycles has increased the focus on DevOps techniques and tools to optimize processes in development, testing and release management.

For IBM i development, Rhenag has relied on the Rational Developer for i (RDi) environment for many years, which has been a good 'starting point' for this modernization. ♦





## THE CHALLENGE

Rhenag has been using a in-house developed change management tool for many years. Like many companies, Rhenag needs to speed up development processes and realised that the existing change management solution could no longer meet the growing requirements of their customers and users. To summarize, the Rhenag DevOps challenges are as follows:

- Analysis of existing application structures is very time-consuming. Dependencies between the software components which make up the application could only be determined manually with limited automation.
- In addition to unit tests, other functional tests were performed manually.
- Automation of the delivery (deployment) process was limited; manual operations always required an additional time-consuming testing step.
- The connection of current DevOps tools to Rhenag's change management toolset could only be realized with a great deal of manual effort. ♦



## THE SOLUTION

After completing a thorough vendor evaluation and Proof of Concept (PoC), Rhenag decided to put in place the ARCAD for DevOps solution with the aim of performing rapid resilient code analyses and replacing the existing change management tool.

The main reasons for choosing ARCAD for DevOps are

- Very high automation of the creation and deployment of IBM i applications

- Powerful integration with Jira, Git (GitLab) and Jenkins
- Established versioning, automated comparison and merging of sources
- User-friendly RDi plug-ins with advanced graphical capabilities
- ARCAD metadata repository: rich dependency/cross-reference information for developers. ♦



## IMPLEMENTATION

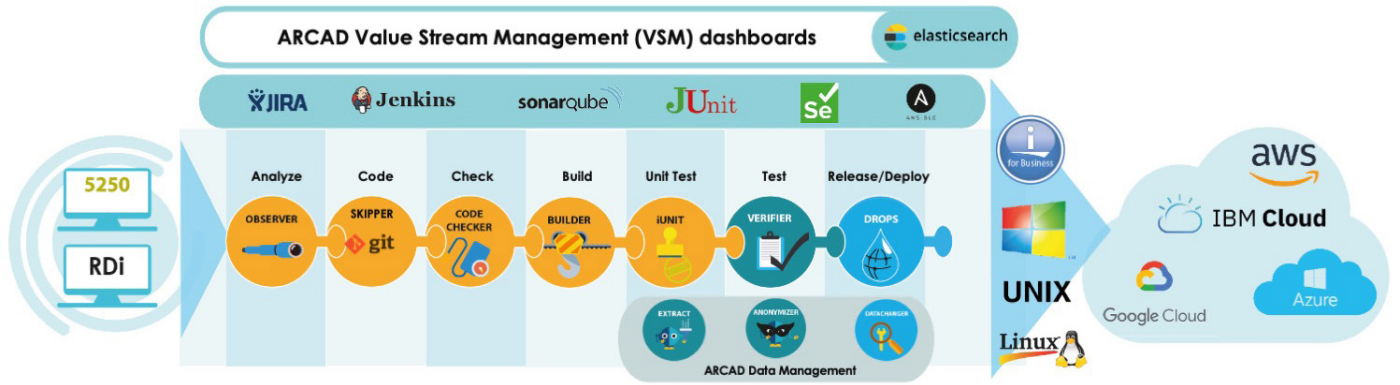
Rhenag has developed a multi-stage implementation plan to ensure that the impact of the introduction of ARCAD on existing customer commitments and development projects is minimized. The implementation includes risk management, Git with ARCAD and Jenkins setup and configuration deployment services, developer training and ongoing support for the development team. ♦



## RESULTS

The development team at Rhenag benefits from some of the innovations included in the ARCAD solutions:

- Automated impact analysis using a repository that is updated in real-time ensures that developers can provide more accurate estimates of the project schedule based on an accurate and up-to-date view of the ACTUAL state of the application architecture.
- Optimized unit tests, source code analyses and functional tests.
- Using Git as a single, cross-platform source code repository facilitates the simultaneous use of different programming languages.



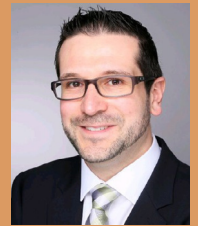
ARCAD for DevOps toolstack for IBM i (aka iSeries, AS/400)

"Rhenag thoroughly evaluated the market for tools and came to the conclusion that ARCAD tools can be used to continuously improve and automate the development process," explains Ralph-Eduard Zenger, Head of Application Architecture at Rhenag.

"With the ARCAD solution, we can implement the diverse and complex regulatory requirements as well as the requirements of our customers more quickly and increase the productivity of our development teams.

We also expect the ARCAD solution to simplify and speed up the preparation of audits as part of our ongoing compliance and certification process." ♦

**Ralph-Eduard Zenger confirms:**  
 "We have the impression that with ARCAD, our team have found a vendor that best meets our requirements and with whom we can successfully realize our DevOps goals.



ARCAD enables both our experienced developers and newly-hired development talents to work together more efficiently and effectively. This is becoming increasingly important especially in times of intensive home-office due to the Covid crisis".

*Ralph-Eduard Zenger,  
 Head of Application Architecture at Rhenag*