PHŒNIX CONTACT

"Thanks to Polarion, we can rely on a single platform to collect our data, exchange documents, collaborate, keep traceability, and control our workflow."

The Situation

PHOENIX CONTACT Electronics GmbH developed their software infrastructure, like many other manufactures; involving various vendor solution providers. For example their Requirements Management was with Microsoft® Office and IBM® DOORS®, and their Revision Control was with Serena and PVCS®. Additional projects were managed through their own tools and Bugzilla operated the defects tracking.

The challenges faced by PHOENIX CONTACT Electronics GmbH in this type of complex environment were keeping track of the flow of information within this fragmented tool-chain. The use of different tools created decentralized documents in different versions. Their circulation gave rise to general confusion in the workflow and in the collaboration between the different teams working on the project. Keeping implementations under control was difficult to manage: it sometimes occurred that original requested requirements were not implemented while requirements requested late in a project were implemented. There was no clear traceability of requirements, implementations, and tests. The test team only became aware of what was really implemented in a version far too late into the process. For that reason, a new Application Lifecycle and Requirements Management solution was needed.

An overall improvement of the software development was deemed fundamental to support the company in following SPICE orientated quality initiatives:

- Harmonize the project visibility for all departments involved in the software development process, such as Marketing, Development and Test.

- Allow a transparent and correct workflow of information between the teams, avoiding document exchange also by e-mail.
- Be a complete web-based solution to allow collaboration of the different working teams, spread in different locations.
- Diagram the V-model based development process of PHOENIX CONTACT.
- Be a user-friendly solution.
- Provide traceability from the idea of a product until the code and test.
- Allow a single data entry.
- Avoid further discussions after approval of requirement documents.
- Allow the integration between Requirements Management, Change Management, Test Management, Project planning and tracking.

The Solution

PHOENIX CONTACT Electronics GmbH started to evaluate different solutions: Polarion, Serena, Telelogic®, and Microsoft® Team Foundation Server®. The evaluation was conducted with a team of developers in the automation technology department and after around six months the company chose to adopt Polarion® ALM™ and Polarion REQUIREMENTS™ solutions.

Top 7 Reasons for this choice were Polarion offered:

- **100% web-based solution.**
- **No integration with one specific IDE necessary as software applications are being developed for Microsoft® Windows as well as for embedded environments.**
- **Legibility of database through SVN open access.**

100%
Web-based

Environment
400 users
3 locations (Germany, USA)

System Specs
Self-hosted,
1 server

Products
Polarion ALM
Polarion REQUIREMENTS

Conclusion

"Thanks to Polarion, we can rely on a single platform to collect our data, exchange documents, collaborate, keep traceability, and control our workflow. With Polarion, we can not only measure our productivity but also improve productivity in our projects. And we can keep track of this!"

Andreas Deuter, Senior Manager Business Process and Technology Management, PHOENIX CONTACT Electronics GmbH.

- **Easy installation.**
- **Operation on Windows and Linux servers.**
- **Adaptation to the company process (and not the opposite).**
- **Introduction of the system without the need to heavily involve internal IT resources (only server hardware was provided).**

Non-technical aspects have been the affordable price, and its installation and customization free from any cost-intensive consulting.

PHOENIX CONTACT Electronics GmbH started the implementation through a Proof of Concept, to confirm and verify the technical functionality and features of Polarion Software as they relate to the company requirements. After this successful first phase, the company set up a pilot project and purchased a few licenses to run the rollout and install and configure Polarion with the support of Polarion Professional Services.

The Rollout has been accompanied with systematic trainings covering both the PHOENIX Contact workflow and Polarion User Training. For this, internal trainers have been training in a teach-the-teachers approach.

The Benefits

Today, PHOENIX CONTACT Electronics GmbH manages 250 projects through Polarion, which is used by 400 users, part of which are external service providers.

Polarion is applied in the three company locations of Bad Pyrmont and Lemgo in Germany, and in Ann Arbor in the United States. Polarion bridges the distance among these locations: now the teams **can easily collaborate** thanks to the single web-based platform in which data is stored and documents are unified, avoiding misunderstandings and confusion.

"Polarion collects all our artifacts and avoids confusing requirements by e-mail," says Andreas Deuter, Senior Manager for Business Process and Technology Management.

Polarion **improved the workflow** by providing a **shared knowledge** of what has already been and what needs to be developed and tested. The Test Management is involved earlier in the development projects thanks to the **unified view** of Polarion. This increased the quality significantly.

The **transparent documentation** also allowed the company to apply the Functional Safety Standard IEC 61508 (Functional Safety of Electrical/Electronic/ Programmable Electronic Safety-related Systems). Existing artifacts from DOORS have been transferred, and Word documents have been imported into Polarion. In the future, the company plans to further improve its collaboration with Polarion, for example by rolling it out to other departments.

"We are satisfied by the service, the support and the implementation of our requirements, which we repeatedly reconsider, and also with the help of Polarion Professional Services. We are positively impressed by the **ongoing improvement** of Polarion products in order to guarantee high quality and compatibility," stated Andreas Deuter. He added: "We cannot value the benefits of Polarion with concrete numbers yet, but thanks to Polarion, we now have the chance to determine numbers, such as the number of Work Items per software version. With Polarion, we can create meaningful **reports** for each status of the development."

The many kinds of reports are just one of the many Polarion features the company relies on daily, such as its easy and performant use, the **traceability**, and its database capability. In addition to the order and **transparency** achieved, the single data entry is time saving and allows for a general improvement of productivity and efficiency.

Phoenix Contact Electronics GmbH

PHOENIX CONTACT Electronics GmbH is a member of the PHOENIX CONTACT Group. PHOENIX CONTACT is a worldwide manufacturer of components, systems and solutions in the area of electrical engineering, electronics and automation.

The company was founded in 1923 in Essen, Germany. Today, it is an international company with its own sales operations in more than **50 countries** and 30 sales partners worldwide. It employs about **12,800 people** and reported revenues of 1.59 billion euros in 2012.

Its versatile product portfolio includes components and systems solutions for the industrial and equipment connection technology, as well as automation, electronic interface technology and overvoltage protection.

The numerous certificates owned by PHOENIX CONTACT guarantee the high quality of its products.

About Polarion

The creators of the world's fastest enterprise scale web-based ALM solution. The success of Polarion Software is best described by the hundreds of Global 1000 companies and over 1 Million users who rely daily on Polarion's Requirements Management, Quality Assurance and Application Lifecycle Management solutions in their business processes. Polarion is a thriving international company with offices across Europe and North America, and a wide ecosystem of partners world-wide.

For more information, visit www.polarion.com.

Transparent Collaboration

Easy exchange of data
speeds up collaboration and approvals

Easy
installation and adaptation

Compliance with IEC 61508
Functional Safety Standard

Clear
Traceability