

RequisitePro Helps Pollak Electronic Products Reduce Project Lifecycles and Improve Software Quality

Rational Software's RequisitePro helps Pollak Electronic Products automate its requirements management process dramatically reducing project lifecycles and catching requirements issues early in the process when they are cheapest to repair.

Pollak Electronic Products, a division of StoneRidge, Inc., is a leading independent designer and manufacturer of highly-engineered electrical and electronic components, modules and systems, principally for the automotive, medium- and heavy-duty truck and agricultural vehicle markets.

Located in El Paso, Texas and Juarez, Mexico, Pollak Electronic Products is the largest independent producer of electronic instrumentation and driver information displays in North America. More than 1,300 employees located in three manufacturing locations provide custom and standard electrical and electromechanical components to OEM and aftermarket suppliers in automotive related industries.

Pollak is an approved ISO 9001 manufacturer and has also earned Q1 preferred status at Ford, General Motors Mark of Excellence, Chrysler's Gold Pentastar, Navistar V and similar rankings with other respected OEMs.

Kim Pries, the company's software development manager and manager of its design and product validation laboratories, has implemented Rational Software's RequisitePro to improve the quality of Pollak's software development activities and reduce project lifecycles.

RequisitePro's Automated Requirement Import Feature Reduces Project Schedules by Weeks

Before purchasing RequisitePro, Pries used a word processing program to manually rewrite customer requirements as software requirements. He would then distribute these documents via "snail mail" to the nine members of his development team.

In order to expedite this process, Pries asked customers to provide their project requirements in electronic format; however, ferreting out software requirements was still an extremely tedious, time-consuming process. In addition, as customers revised their requirements, he would have to manually go through documents looking for changes. Pries always worried that he had missed a critical customer request.

For Pries, the most powerful feature of RequisitePro is the automated import feature. Pries uses RequisitePro to automatically search customer requirement documents for words such as "should," "must" or "ought" (words that typically signify what the customer wants the product to do). This automated process replaces the inefficient process of reading through documents manually looking for requirements.

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RequisitePro automatically pulls requirements from documents and places them directly into the requirements database. “The automated import feature of RequisitePro is a great productivity benefit for me,” explained Pries. “I can do in less than one hour what used to take me two weeks to do.”

“In short, the automated import feature is awesome,” he said.

RequisitePro Helps Pollak Achieve Software Quality Goals

Pries’ background prior to working at Pollak was in military contracting, so he was hired to bring “a methodology to the software development process.”

“We developed our enhanced software development policies based on the SEI’s (Software Engineering Institute) Capability Maturity Model, which required substantial amounts of requirements analysis.”

Pries has also implemented the Military Standard 498 at Pollak for defining and managing requirements. Because RequisitePro lets customers utilize any standard template, Pries has integrated military DID (data item description) templates into RequisitePro. By doing

this, RequisitePro automatically uses Pries’ templates to define relationships between product and software specifications.

“Our goal as a company was to complete software development projects on time and under budget. In the past, we had some problems achieving this, so we reengineered our whole business. Our request for quote, product launch and software development processes are now all managed under more effective process models,” said Pries.

To transition his software development activities to a new quality process model, Pries selected RequisitePro as his requirements management tool several years ago when Version 1.0 was released. “We chose RequisitePro because it was, and still is, the best game in town.”

Improving software quality is not only a goal for Pollak, it’s also something customers demand. Occasionally, Pries’ team will write their client’s product and software specifications for them. Many of Pollak’s automotive industry customers are trying to get ISO 9000 certified. “The automotive industry is an extremely competitive business, and our customers are continually getting better at it,” said Pries.

RequisitePro’s Flexible, User-Defined Attributes Improve Requirements Definition

Another important feature of RequisitePro for Pries is the ability to assign user-defined attributes to every requirement. “With RequisitePro’s flexible attribute feature, I can define my own criteria for hardware and software testing. I can break a requirement down into specific examples for testing (i.e., power on sweep), and then define that requirement as a testing requirement.”

In a recent development project, Pries was able to define and manage 15 different testing modes for each requirement, which ensured a more comprehensive testing process and track record.

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RequisitePro's Reporting Features Enhance Interdepartmental Team Communication and Requirement Testing

Pries uses RequisitePro's reporting features to generate checklists for his own and other departments. He will generate a requirements traceability report in a checklist format for the electrical and mechanical engineering departments so they can verify that hardware requirements are thoroughly tested. He also distributes a testing requirements checklist to the test equipment group. For the testing report, he can specify "burn in" requirements for the team, which saves them time during the testing process and improves product quality.

During a development project, Pries uses RequisitePro's Views Workplace to generate a functional configuration audit report, which is a complex test to make sure the product does what it is supposed to do.

In addition, to communicate customer and requirement changes to team members, Pries uses the Views Work-

place to print a report of all requirements that have changed. "These reports help my team ensure that we are producing exactly what the customer wants," said Pries. "Meeting customer needs is very important to our company. RequisitePro has helped us do it right the first time and test more effectively. Not only has RequisitePro helped us meet customer needs, I would estimate that RequisitePro saved us at least a month of development time on our project during the requirements analysis phase."

"Since we began using RequisitePro, we now have a lot more time to devote to quality testing. This extra month makes a big difference in reducing mistakes," he said. "With RequisitePro, Pollak now produces a better and more fully-tested product. We catch requirements issues faster and earlier in the process, when they are the easiest and cheapest to repair."

Pollack Electronic Products Development Environment

- Needed automated tool for capturing, managing and communicating requirements
- Cross-functional development team required immediate information on requirement changes
- Stringent, military-based quality process standards
- Goals to develop software on time and under budget

RequisitePro Solutions for Pollack Electronic Products

- Greatly reduced requirements creation time using automated import feature and standardized templates
- Requirements, attributes and documents are shared with team members across departments
- Views Workplace and reporting features reduced errors and improved testing quality
- Project lifecycle reduced by one month, helping meet internal quality goals and customer needs

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AR508: rev 9/98. Subject to change without notice.