



U.S. FAA Team Flying High with Polarion



The Customer

The U.S. Federal Aviation Administration (FAA) is the national aviation authority of the government of the United States. A division of the U.S. Department of Transportation, the agency regulates and oversees all aspects of civilian aviation in the United States. A development group within the FAA has adopted Polarion as their application lifecycle management solution.

The software product managed by this group primarily monitors compliance of contractor provided automatic dependent surveillance broadcast system (SBS) data with contract terms and expectations. Since the monitoring system is ground based, the group aligns its development methods with the aviation standard for ground based software known as DO-278.

The Challenges: Traceability & Standards Compliance

Their previous solution, which included Harvest SCM and Microsoft® Word documents, simply could not provide the necessary traceability and baseline centric documentation required by DO-278. It could not handle all the different file types, linking of requirements to source code impossible, and linking to object code extremely difficult.

Another challenge was a fast-growing set of stakeholders in different groups, necessitating an ever greater level of agility in their "cyclic waterfall" process. "Having to be nimble was a big challenge," said the group's configuration and verification manager.* "The ability to attach source code changes to requirements enhances portability and maintainability, and is essential for DO-278 at higher levels of assurance."

The Solution

Because the group already used Subversion to manage source code changes, any solution for traceability based on Subversion would be highly desirable. "We much preferred to have a lifecycle and traceability solution that was tightly coupled to our existing version controls rather than an external overlay system." said the group leader. Polarion was the top candidate almost from first research stages because it was clear from the outset that it addressed all the project's key requirements:

- Polarion uses Subversion as the data repository, eliminating the need for any integration from the outset.
- Polarion is designed to provide format-independent traceability from requirements to source code and onward to object code.
- Polarion supports any process, easily mapping it to workflow control and automating key functions.

The Result

Polarion LiveDoc™ technology has brought significant benefits to this group. "Before Polarion, we had to change the entire documents when requirements were changed - not just one requirement. Now, we can change requirements one by one."

Import from Microsoft Word proved to be another plus. According to the group manager, the overall result in time savings for new requirements is as much as 50%.

Polarion's flexibility and customizability in mapping a process and controlling it throughout the lifecycle not

50%

time reduced on creating new requirements

"Polarion takes new feature requests quickly, and that's great!"

DO-278

only helps this FAA team today, but is likely to deliver ongoing benefits down the road.

“Right now, we need compliance with only a fairly low level of DO-278. With Polarion, we can easily ramp up to higher levels, and as standards evolve and change over time, it will be much easier for us to adapt.”

“Our process is complex. We like the ability to use scripting and our own development to automatically link and trigger workflow without manual work.”

Additional Polarion Plusses

Besides their top 3 decision criteria (“native” SVN, traceability, flexibility), The FAA team found other factors that have cemented the decision for Polarion.

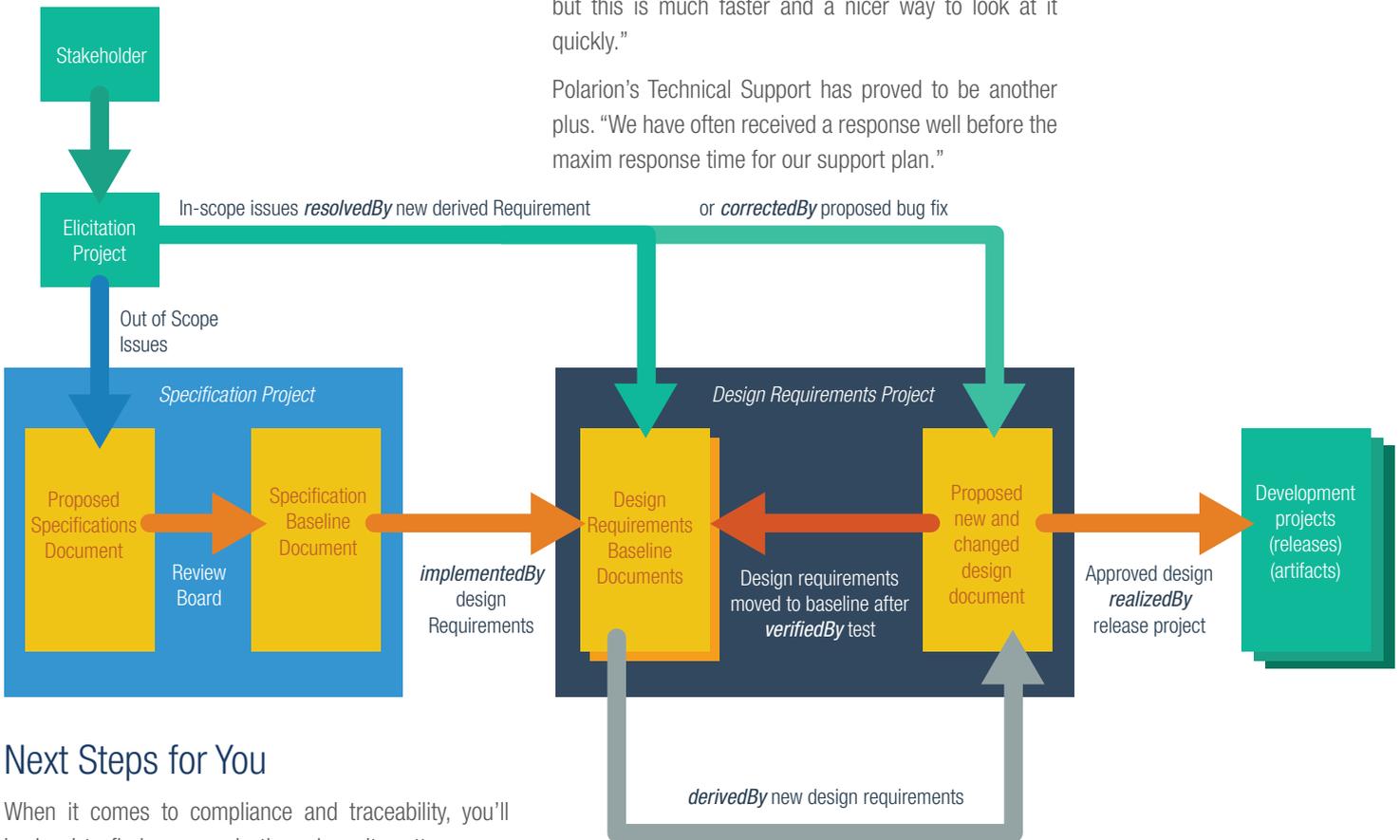
“Polarion takes new feature requests quickly, and that’s great. We’re looking t an even better product now than when we started.”

“The ability to duplicate a Work Item as a different type and plug it into any Document is really efficient.”

You can work in the Document view to enter new Requirements, then switch to the Table view, add a column for Revision, and easily find requirements that have no revision at all. You can write a query to do that, but this is much faster and a nicer way to look at it quickly.”

Polarion’s Technical Support has proved to be another plus. “We have often received a response well before the maxim response time for our support plan.”

“Our process is complex. We like the ability to use scripting and our own development to automatically link and trigger workflow without manual work.”



Next Steps for You

When it comes to compliance and traceability, you’ll be hard to find an organization where it matters more than at the FAA. Whether your industry is aerospace, automotive, or medical devices, Polarion has solutions and know-how to help you remove obstacles, work more efficiently, and compete more effectively in today’s fast-evolving markets.

About the FAA

The Federal Aviation Administration describes its mission as providing “the safest, most efficient aerospace system in the world”. You can learn more about this civil aviation agency on their web site at www.faa.gov.

About Polarion

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.

“The ability to attach source code changes to requirements is a really nice thing to have, especially for the higher levels of DO-278.”

* (Name withheld due to agency policy.)