

## **CUSTOMER STORY**

Award Winning Automotive Software Developer Selects Jama Connect<sup>®</sup> to shorten development time, increase efficiency, and sail through audit preparation

# ABOUT Apex.Al

- Headquartered in Palo Alto, CA in the heart of Silicon Valley with offices in Munich, Berlin, and Stuttgart, Germany and with employees worldwide
- Founded in 2017 in Palo Alto, CA
- Expertise: Building robust, reliable, safe, secure, and certified software for mobility systems
- Recent Awards for Apex.OS, the safety-certified automotive OS:
  - Apex.OS wins two awards from the German Design Council (June 2021): "Best of the Best" award and "Innovation of the Year" award
  - Apex.OS honored with the CES Innovation Award (Jan 2021)

Apex.Al, founded in 2017 in Palo Alto, California, is a mobility software company, and makers of the ISO 26262 ASIL-D safety-certified software framework Apex.OS. As a pioneer in modern C++ software development for safety, they are the first organization to certify a modern C++ open-source product to ASIL-D.

Their client list is extensive and prestigious, and they are backed by some of the leading venture capital firms in the world, including Lightspeed Ventures, Toyota AI Ventures, Volvo Ventures, and Airbus Ventures.

# APEX.AI CUSTOMER STORY OVERVIEW

## **OBJECTIVES**

- Create a centralized repository of requirements
- Demonstrate compliance with stringent automotive standards
- Leverage a modern, cloudbased solution that all team members could use
- Enable collaboration across globally distributed teams

# WHY AUTOMOTIVE INNOVATORS SELECT JAMA CONNECT

- Live Traceability<sup>™</sup> from requirements through to tests
- Powerful, flexible solution
- Industry-specific templates and expertise with automotive development
- An easier path to compliance

# THE OUTCOME AND THE FUTURE

- Connected development
  ecosystem
- Efficiency increased 30%
- Seamless, fast review and approval cycles
- Simplified audit preparation and regulatory compliance
- 75% improvement in audit efficiency

With a mission to enable automotive developers to implement complex AI software, and enable AI developers to implement safety-critical applications, Apex.AI is an innovator in the automotive industry.

Comprised of alumni from top automotive, robotics, and software companies around the world, the Apex.Al team knew that development success starts with requirements management. That's why they set out to evaluate the top requirements management solutions from the very beginning.

The team had clear objectives and knew that their requirements management solution needed to:

- Allow the team to create a centralized repository of requirements
- Help them demonstrate compliance with stringent automotive standards like ISO 26262
- Enable collaboration across a globally distributed team
- Be a modern, cloud-based solution that all team members could use
- Have industry acceptance and expertise



The team did not take the selection process lightly; they knew there was too much at stake. Apex.AI did an analysis of the full requirements management tools and software market and decided to evaluate Siemens Polarion and YAKINDU more in-depth.

After an in-depth analysis of these requirements management (RM) tools – including interviewing current users of these products – Jama Connect was selected as the solution of choice for the team for the following qualities:

- Live Traceability from requirements all the way through to tests
- Powerful, flexible solution that all team members can easily use
- Industry-specific templates and expertise in automotive development
- An easier path to compliance

Why would an innovative automotive company consider Jama Connect? From my perspective, Jama Connect is the best of breed requirements analysis and requirements engineering tool... I would highly recommend it and I would use it again without any hesitation on any subsequent project.

**Neil Langmead** Senior Functional Safety Engineer, Apex.Al

Update to Live Traceability Across the Entire Product Development Process

Jama Connect is the only requirements management platform that creates Live Traceability, the upstream and downstream visibility and linkages between all activity around each requirement and provides actionable insights into the end-to-end product development lifecycle. With Live Traceability, teams within Apex.Al can continuously sync traceable information from other best-of-breed tools.

"Having automated traceability was really important because we knew from previous experience how timeconsuming it is trying to trace requirements to test manually and answer other artifacts. Having this happen automatically in Jama Connect saves us an incredible amount of time," said Langmead.

#### **Powerful, Flexible Solution**

As an innovator in automotive software development, Apex.Al knew that being slowed down by a clunky, outdated requirements management solution was not an option. And Jama Connect stood out immediately as an easy-to-use solution with powerful capabilities.

While Jama Connect can be installed in a matter of minutes, it also has the power to reliably manage globally distributed teams developing some of the most complex products and systems in the world.

"Jama Connect doesn't require much in the way of support and overhead. Once we installed the cloud-based solution it 'just works' – and that's the highest validation for any complex piece of software," said Langmead. "It's also the high-quality standard for Apex.OS, because our customers use it to develop modern software-defined automobiles that just work."

#### Industry-Specific Templates and Expertise in Automotive Development

The team at Apex.AI believes that the industry knowledge and expertise at Jama Software is a major reason why innovators in the automotive development space are drawn to Jama Connect. With automotive-specific templates, personalized consulting, and standard frameworks aligned to key regulations (like ISO 26262 and ASPICE), Jama Connect simplifies functional safety and improves development cycles across a complex supplier ecosystem.

"With Jama Connect for Automotive, the complex workflows have been automated and prepared in advance. The quick-start guide paired with the industry knowledge of the Professional Services team got us up and running quickly. We got there so much faster than we otherwise would have," said Langmead.

#### An Easier Path to Compliance

The team at Apex.Al says that implementing Jama Connect has greatly reduced the burden of documentation and shortened the certification and approvals process because it's certified by TÜV SÜD as a fit-for-purpose requirements management solution.

In fact, Apex.Al estimates that the team has seen a 75% improvement in audit efficiency since onboarding Jama Connect.

"When we're being audited, the auditors know the power of Jama Connect and they know we're prepared, and that we are serious because we're using such a well-established, certified tool," said Langmead. Jama Connect doesn't require much in the way of support and overhead. Once we installed the cloud-based solution it 'just works' – and that's the highest validation for any complex piece of software.

**Neil Langmead** Senior Functional Safety Engineer, Apex.Al

The Jama Software team has also been able to provide insight and guidance with ISO 26262 compliance, especially as it pertains to ASIL-D, the most exacting and demanding part of the standard. Apex.Al was able to meet the onerous requirements to show that the software has been developed in the right way and achieves this standard.

"Jama Software's Professional Services team was instrumental in helping us achieve ISO 26262 compliance because of their wealth of knowledge," said Langmead.

Apex.Al recently moved their FMEA process to Jama Connect, because the platform allows you to automatically trace safety requirements coming out of the FMEA process and provide automated documentation.

# THE OUTCOME AND THE FUTURE

Apex.Al's new, connected engineering ecosystem of tools allows the team to move quickly and be more agile. They estimate that thanks to seamless, fast review and approval cycles in Jama Connect, they've been able to increase their efficiency by more than 30%.

"We love that with Jama Connect, you can do more than just requirement traceability. Jama Connect has a useful REST API that we use to automate syncing of GitLab and TestRail that allows us to complete our traceability for all requirements in record time," said Langmead.

"We have a very productive, modern software development environment and Jama Connect plays a key role in that. There's great connectivity between Jama Connect and Jira, and between Jama Connect and our testing platform, Tasktop. All our tools talk to each other and work seamlessly well together."

Langmead compares purchasing Jama Connect to going to the doctor for preventative measures, rather than when you're already ill.

"You can go to the doctor to go on remediation to get out of horrible inefficiencies, or you can stay fit and healthy by using the right tools from the beginning. It's the same in the software world and deploying Jama Connect from the beginning has helped us avoid a lot of pain in our toolchain."

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**Neil Langmead** Senior Functional Safety Engineer, Apex.Al



#### ABOUT JAMA SOFTWARE

Jama Software is focused on maximizing innovation success. Numerous firsts for humanity in fields such as Jama Software® is focused on maximizing innovation success in multidisciplinary engineering organizations. Numerous firsts for humanity in fields such as fuel cells, electrification, space, software-defined vehicles, surgical robotics, and more all rely on Jama Connect® requirements management software to minimize the risk of defects, rework, cost overruns, and recalls. Using Jama Connect, engineering organizations can now intelligently manage the development process by leveraging Live Traceability<sup>™</sup> across best-of-breed tools to measurably improve outcomes. Our rapidly growing customer base spans the automotive, medical device, life sciences, semiconductor, aerospace & defense, industrial manufacturing, consumer electronics, financial services, and insurance industries. To learn more, visit us at: jamasoftware.com.