Tech Leaders Unite: TARGAN leveraging Copia's Industrial DevOps Platform to Drive Innovation and Cross-Functional Collaboration

TARGAN

TARGAN, a pioneering technology company revolutionizing global food supply with its AI-powered solutions, relies on a robust and agile development process to maintain its competitive edge. In the fast-paced world of technology, where innovation is paramount, TARGAN recognized the need for a streamlined and efficient approach to manage their industrial codebase and facilitate collaboration across their engineering teams.

Challenges of a Growing Tech Company

As a rapidly growing startup, TARGAN faced the challenge of scaling its development processes while maintaining code integrity. The traditional methods of code management and collaboration were proving cumbersome and inefficient, especially as the company's engineering team expanded and projects became more complex.

COPIA

Brian O'Sullivan, Lead Senior Automation Controls Engineer at TARGAN, described the core of their problem being, "the difficulty in collaborating. Starting out, we had one big project and now we've got multiple. But we have very large projects with lots of different moving parts, lots of different communication between systems. So being able to have multiple people work in parallel on different areas [of industrial code] would be a big benefit, but there was a lot of challenge in that."

"We'd have one version — one zip file essentially — saved on a server with a date in the name. And then when someone wanted to write or add anything new, I would have to encapsulate it in a function block and save it as another version. Then the next person who is doing the merge of the integration would open it up, and they'd have to copy-paste out parts and put it into theirs and then create a new version. It's this very, very manual process. Very easy to miss things. Very easy to make a mistake."

Copia's Source Control: A Catalyst for Efficiency and Collaboration

TARGAN sought a solution that could address these challenges and empower its engineers to collaborate seamlessly to accelerate development cycles. They discovered Copia's Industrial DevOps Platform and its Git- and cloud-based Source Control solution that is tailored for industrial automation.

"One of the biggest benefits is doing pull requests and having a visual diff. That's a big differentiator with Copia. Because, while we could use Github or Azure or whatever else, those systems can't do pull requests with the visual diff. With Copia, we can actually look at the work that other people are doing. We can manage branches, we can lock down branches. We can say, 'hey, you can't commit to this thing unless we do a pull request and somebody okays it.'"

"All of this avoids the 'who did it this way' problem. We have visibility and traceability into changes and can understand the 'who' and the 'why' without blame. This creates an environment that eliminates hidden, broken things. It drives a best-practice approach across our teams."

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Overcoming Implementation Challenges

TARGAN's adoption of Copia's Git-based Source Control solution was not without its challenges. The initial learning curve associated with Git and source control concepts required dedicated training and support. However, Copia's responsive customer support team and comprehensive training resources ensured a smooth transition. TARGAN also applied a phased approach to feature adoption, starting with basic version control and gradually incorporating more advanced features like branching and pull requests as the team became more proficient.

O'Sullivan explained their strategy, "We sort of slow roll the feature adoption... At the outset, we use it as a way to track changes because we have a handful of engineers who don't necessarily have a software background. As a team, we are committed to creating good code. And if you're committed to that, it's easier to go down the path of following software engineering best practices."

"Other places I've worked, there is no recognition of value there. Controls is an extension of a circuit and you lay it out and that's kind of it, and then you toss it over the fence. But we're doing a whole lot more actual software engineering on the control side because we have Copia and the benefits it brings to our OT/Controls team."

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Transforming TARGAN's Development Process

The implementation of Copia's Source Control has transformed TARGAN's development process, fostering a culture of collaboration, efficiency, and continuous improvement.

- **Reduced Rework and Errors:** Copia's real-time code review and diff capabilities enabled TARGAN to catch potential errors and inconsistencies early in the development process. *"We've never had a single pull request that went through on the first try. There's always been at least one thing that we catch and say, hey, let's make this a little better before it goes out,"* O'Sullivan remarked.

- **Accelerated Development Cycles:** The ability to work independently on branches and seamlessly merge changes enabled TARGAN to accelerate development cycles and respond more quickly to market demands.

- **Enhanced Cross-Functional Collaboration:** Copia's platform bridged the gap between IT and OT teams, fostering collaboration and enabling seamless integration of development processes with other software groups. McCartney highlighted this benefit, saying, *"From an IT perspective, being a highly technical company, we want to follow best practices, procedures, and industry standards. Copia provides the equivalent for Controls that we have in place for other areas of the company that do software development. This builds confidence and encourages communication."*

- **Strengthened Security:** The platform's cloud-based management and robust security features offered a secure environment for TARGAN's intellectual property, providing SOC 2 Type 2 compliance and an evolving approach to security aimed at continually improving. McCartney emphasized, *"Anything that's in the cloud is always put under scrutiny because it's not in your immediate vicinity or infrastructure to take care of. Security, it's on the top of everybody's mind all the time. And with something like code, it's company IP, we want to secure that as much as possible. But without leveraging the cloud, we'd never get the utility that your product provides. So there's always some given take there. To me, having a cloud platform is an advantage."*

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Conclusion

TARGAN's partnership with Copia Automation has been instrumental in their journey towards becoming a tech leader in the Animal Ag-Tech industry. Copia's Industrial DevOps Platform has empowered TARGAN's engineers to collaborate seamlessly, streamline their development processes, and maintain code integrity, all while ensuring the security of their valuable IP.

As McCartney stated, "As a highly technical company, we've built our commercial systems in-house, from our mechanical engineers to our software development, controls, vision engineers, you name it, commercial IT as well."

"So partnering with strong companies and strong solutions has been the bedrock of forming solutions that we could build off of as we scale the company."

"Trying to be a tech leader in our area, the product we've developed is unique. No one else is doing it. We're using computer vision and AI to determine the gender of chicks. If we didn't have a strong team like Brian's using solid tools like yours, we wouldn't be able to be a tech leader in our area. We look to partner with tech leaders in their respective areas, like Copia."

As TARGAN continues to innovate and expand its operations globally, Copia's scalable and cloud-based platform will play a critical role in supporting their growth and maintaining their competitive edge. By embracing Industrial DevOps and leveraging tools like Copia's Git-based Source Control, TARGAN is well-positioned to continue pushing the boundaries of what's possible.

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Key Advantages

- **Enhanced Collaboration:** Copia's centralized platform enables real-time code reviews, efficient merging of changes, and improved communication. O'Sullivan noted, *"It's much easier now... We can very easily give chunks [of industrial code] to multiple different people and have them work independently and then merge all of that together."*

- **Streamlined Version Control:** The platform's robust version control system empowered TARGAN's engineers to track changes, comment within lines of code, revert to previous versions effortlessly, and maintain a clear history of modifications. As O'Sullivan explained, *"It empowers the individual engineers because they can just go and grab a branch and say, okay, I know what this branch does. I can look at the commit history. I can look at all the descriptions. I know everything that's in here. I can see where it came from, and I can just go and make my change and take ownership of that."*

- **Enhanced Visibility and Traceability for the Service Team:** Copia's intuitive interface and seamless integration with existing modern development tools empowers TARGAN's service team to take ownership and work independently. *"Because Copia is Git-based, it integrates with modern tools and modern tools allow for distributed communication — distributed everything — and that integration makes our service teams' job so much easier and gives them so much more at their fingertips to be able to make decisions. They can say "it's time to upgrade to a new version" or "we've got a bug fix that's coming out - let's take action now." Copia empowers them and saves everyone time,"* said O'Sullivan.

- **Simplified Onboarding:** Copia's user-friendly platform and comprehensive tutorials helped TARGAN onboard new engineers quickly, even those with limited experience in source control, reducing the learning curve and accelerating productivity. Sean McCartney, Senior Manager, Corporate IT, observed, *"Copia helped onboard new users as they joined the company and his (O'Sullivan's) team because they had the visibility of everything that Copia put forth in front of them."*

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