

MCI Controls Solutions — Streamlining Growth and Enhancing Collaboration with Copia's Source Control



The Challenge of Rapid Growth

[MCI Controls Solutions](#), a dynamic company renowned for delivering customer-engineered automation solutions at a production-style pace, faced a significant challenge in managing their codebase as their business scaled. The company's rapid growth led to an increase in the number of controls engineers, creating complexities in communication, version control, and project management.

"We are a fast-growing company," explains Ian McQuagge, Director of Engineering at MCI. "We went from one engineer managing each control platform to having each control platform have three to four controls engineers. When we put more than one hand in the pot, it became much more effort to manage communications, issues, releases, etc."

The traditional methods of collaboration and code management, primarily relying on email and file explorer, proved inadequate in this new environment. McQuagge candidly reflected that the growth of the business left them with

a lack of a centralized system for version control and change tracking, which made it difficult to maintain code integrity, leading to potential errors and inefficiencies — risks that he sought to mitigate.

Copia's Source Control: A Solution for Streamlined Industrial Code Collaboration

"During COVID and the supply chain constraints, we were forced to use hardware and software we had never used to continue to supply our engineered systems," McQuagge explained. "This caused us to go from managing four master programs to twenty-four because of all the variation and change. It became much more labor-intensive to maintain a clean industrial code version history. Copia provides a great deal of benefit by reducing the time we spend tracking what we do, freeing us to spend our time doing what we do and adding value to our customers."

MCI sought a solution to address these challenges and enhance collaboration across their engineering teams. They turned to [Copia Automation's Source Control](#), a Git-based platform that provides a centralized repository for managing, collaborating, reviewing, and deploying industrial code changes.

Key Advantages:

- **Improved Collaboration:** Source Control streamlined communication and eliminated the reliance on cumbersome email threads and file explorers, fostering efficient collaboration across multiple business units and departments.
- **Enhanced Version Control:** The platform's robust version control system enabled MCI to track code changes, revert to previous versions when necessary, and maintain a clear history of modifications, ensuring code integrity and reducing the risk of errors. As McQuagge pointed out, "It allows us to have a more in-depth and structured version history of our programs, and increases our ability to collaborate without so much email traffic."

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- **Seamless Integration:** Copia's Source Control seamlessly integrated with MCI's existing Allen Bradley and Schneider development tools, ensuring a smooth transition and minimizing disruption to their workflows. For an advanced notification structure MCI integrated Microsoft Teams by leveraging Copia's webhook module.
- **Enhanced Security:** The platform's security features provided a much-needed separation by setting up user rights between manufacturing and controls engineering, safeguarding MCI's codebase and protecting against accidental code modifications. "Copia provides a seamless and more efficient security separation between manufacturing and Controls Engineering that eliminates the need for static copies being distributed frequently" added McQuagge, "which provides vital peace of mind as we scale our organization."

Transforming the Development Process

Implementing Copia's Source Control quickly brought about a positive cultural shift within MCI, fostering greater accountability and visibility into the development process.

"There is an increase in accountability and visibility because of its high-level view of the life of a program," McQuagge observed. "The platform's ability to track changes, review code, identify potential issues, and collaborate more effectively empowers teams to take ownership of their work and contribute to the company's success."

MCI's experience underscores the transformative potential of Industrial DevOps at enabling rapid growth and enhancing collaboration. By embracing tools like Copia's Source Control, organizations can foster a culture of innovation and continuous improvement, which delivers on the desires of the next generation of workers who look to learn, grow, and contribute meaningfully in their roles.

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Looking Ahead: A Future of Agility and Innovation

As MCI continues to expand and innovate, Copia's Source Control will play a pivotal role in their digital transformation journey. The platform's scalability and seamless integration capabilities will enable MCI to maintain agility and efficiency as they navigate the complexities of the modern industrial landscape.

By leveraging Industrial DevOps and partnering with Copia Automation, MCI is well-positioned to achieve its mission of providing customer-engineered solutions at a production-style pace, while maintaining the highest standards of quality, functionality, and robustness in its control platforms.

McQuagge ended by highlighting the forward thinking direction of MCI and their partnership with Copia. "Our unique gift is being able to tailor equipment to enhance the daily life of our customers. We continue to remain agile, to prototype in process, to innovate, and push the bar of our impact higher. Leveraging the most effective and cutting edge softwares such as Copia, empowers us to provide our customers with bug-free, high functionality, and robustness in our control platforms."

"Overall, we're very satisfied," said McQuagge. "Copia's centralized platform makes it easier to track changes and manage development between a multi-functional company. There is an increase in accountability and visibility because of its high level view of the life of a program. I would recommend Copia to other companies — absolutely."

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Challenges:

- Lack of a centralized system for version control and change tracking
- Difficulty maintaining code integrity, leading to potential errors and inefficiencies
- COVID and the supply chain constraints forced use of new hardware and software in order to continue to supply engineered systems to customers

Solutions:

- Implementation of the Copia Industrial DevOps Platform for centralized repository to manage, collaborate, review, test, and deploy industrial code changes
- Utilize Copia for best-in-class Git-based version control, project collaboration, and back-up/disaster recovery features

Benefits:

- Security features safeguarding MCI's codebase and protected against unauthorized access
- Improved collaboration driven by centralized platform that eliminated the reliance on cumbersome email threads and file explorers, fostering efficient collaboration across multiple business units.
- Platform's robust version control system enabled MCI to track code changes, revert to previous versions, and maintain a clear history of modifications, ensuring code integrity and reducing the risk of errors
- Seamless Integration to MCI's existing Allen Bradley and Schneider development tools, ensuring a smooth transition and minimizing disruption to their workflows

