Life Sciences Company Enhances Automation, Risk Management, and Disaster Recovery with Copia

Overview

A 5B+ bioprocessing-focused life sciences company is leveraging Copia to help as their business continues to grow and scale.

Due to their accelerated growth, they faced significant challenges in managing multiple versions of PLC code across various sites and devices. With 12-15 manufacturing sites and hundreds of PLCs to maintain, this organization needed a more reliable way to ensure code version control, manage backups, and prevent costly downtime. The key goal in seeking a solution was to improve operational efficiency while minimizing risk related to lost or outdated PLC code.

They approached Copia to centralize their operations, improve collaboration, and enhance their ability to prevent non-recoverable PLC incidents.

"Copia helps us confidently manage our PLC code and stay in control of critical processes," the Associate Director of Automation & OT stated.

"With 12-15 manufacturing sites and hundreds of PLCs to maintain, this organization needed a more reliable way to ensure code version control, manage backups, and prevent costly downtime."



The Quest for a Solution

Prior to Copia, this organization faced significant inefficiencies in their PLC code management process. The team struggled with multiple versions of the same code and lacked a centralized system to store and manage these versions, resulting in vulnerabilities and potential downtime.

As the Associate Director of Automation & OT explained, **"We lost a PLC** program due to incomplete code backups and spent weeks trying to recover it from various sources. The whole process was extremely painful, and we realized we needed a centralized solution."

Customer's key pain points included:

- Multiple versions of code without clarity on the most recent version.
- No centralized repository for storing code across multiple locations.
- **Inconsistent processes** for backing up and retrieving critical code versions, resulting in uncertainty and lost time.

Additionally, as their Principal Automation Engineer, pointed out, "There wasn't a formal process for placing everything in a single repository. It was kind of on the person managing the site or the equipment to have their own best practices."

Solution: Copia's Industrial DevOps Platform

To address these challenges, they implemented <u>Copia's Industrial DevOps</u> <u>Platform</u> across multiple sites. This allowed them to streamline version control, automate backups, and centralize code management, greatly reducing the risk of lost or outdated code.

Key features and Benefits:

- Centralized repository for all PLC code, ensuring no version is lost or hard to track using Copia's Git-based Source Control.
- Version control and change validation, making it easier to confirm and track changes in real time.

"One of the most frustrating things in our current setup is dealing with multiple versions and locations for our code. With Copia, we finally have a centralized system where we can go back to a known good state of things, which is critical for complex changes." Automated backups for Rockwell and Siemens PLCs, reducing the time spent on manual backups with Copia's DeviceLink backup and disaster recovery product.

As the Associate Director of Automation & OT highlighted, "One of the most frustrating things in our current setup is dealing with multiple versions and locations for our code. With Copia, we finally have a centralized system where we can go back to a known good state of things, which is critical for complex changes."

"Copia's automated backups and centralized version control have given us confidence in our system's accuracy, saving us time and reducing operational risks."

Smooth Transition to Copia

This customer's implementation process with Copia was smooth and efficient. Starting with two key sites, the team rapidly deployed Copia on VMs (Virtual Machines) and set up automated backups for critical devices, including Rockwell Studio5000 and Siemens PLCs. Within a short period, they expanded Copia's usage across all their key operations.

Initial rollout covered:

- 7-8 PLCs across two sites.
- Deployment of two agents with full access to all sites.
- Expansion plans to cover all 12-15 sites with over 300-400 PLCs.

As their Principal Automation Engineer noted, "The centralized repository is just really helpful and key. It's reduced the amount of time we spend searching for code across multiple locations and has improved our overall efficiency."

The success of the initial rollout has set the stage for further expansion, including automation of backups across all sites and additional use of Copia's Industrial DevOps functionalities.

"Starting with two key sites, the team rapidly deployed Copia on VMs (Virtual Machines) and set up automated backups for critical devices, including Rockwell Studio5000 and **Siemens PLCs.**"

Benefits Gained from Copia

This customer achieved several critical benefits that aligned with their business objectives for the next 12-18 months. These benefits include:

- Improved Risk Posture: This customer now has confidence in the accuracy and completeness of their code backups, preventing the nightmare scenario of lost code. As their Associate Director of Automation & OT shared, "The worst thing that could happen is we lose a PLC and we're in the same position as before Copia. But where we've deployed it, we have the backups, and we've done a good job ensuring those are coming through."
- Scalability and Flexibility: Copia's scalability allows the organization to expand its use across all sites, ensuring future-proof management of PLC code. The team is also exploring automation features and DevOps functionalities to enhance operations further. The Principal Automation Engineer noted, "We've begun to expand the number of devices on scheduled backups, and Copia's source control features are helping us manage our continuous improvements more effectively."
- Operational Efficiency: By reducing the time spent tracking down code and conducting backups, they estimate annual net savings of \$2,160 (as seen in the ROI analysis below). The centralized repository allows them to recover faster and with more confidence.

"By reducing the time spent tracking down code and conducting backups, they estimate **annual net savings of \$2,160."**

Estimated Yearly Cost with Current State:

- Tracking Down Code and Connecting to Machine
 - Estimating (100 hours at \$100/hour): \$10,000
- Time lost to debugging code with lost comments and tag names
 - Estimating (400 hours at \$100/hour): \$40,000

Estimated Yearly Cost with Future State (year 1):

- Tracking Down Code and Connecting to Machine
 - Estimating (25 hours at \$100/hour): \$2,500
- Time lost to debugging code with lost comments and tag names
 - Estimating (400 hours at \$100/hour): \$40,000

Estimated Yearly Cost with Future State (years 5+):

- Tracking Down Code and Connecting to Machine
 - Estimating (25 hours at \$100/hour): \$2,500
- Time lost to debugging code with lost comments and tag names
 - Estimating (0 hours at \$100/hour): \$0

Estimated Yearly Net Savings to Start: \$2,160

Estimated Yearly Net Savings, Future State: \$42,160

Expanding Horizons

Looking ahead, this customer is preparing to integrate even more PLCs and automation systems into Copia. The team's confidence in Copia has led to the exploration of additional features, such as infrastructure-as-code tools, templating, and API integrations for even more efficient workflows. As the Associate Director of Automation & OT pointed out, "Using Copia correctly should help improve our compliance posture as well. While we're not as heavily regulated as our customers, we're aiming to bridge gaps in compliance and change control, which Copia helps us document more effectively."

With Copia's ability to handle complex version control, this customer is wellpositioned to maintain high operational efficiency, minimize risk, and support future growth across all their sites.

Challenges:

- Multiple versions of code without clarity on the most recent version

 Frequently encountered issues with outdated or incorrect PLC code versions due to inconsistent processes for managing and storing code across sites.
- No centralized repository With code stored in various locations (e.g., local drives, email, SharePoint), the team faced significant inefficiencies in locating and retrieving the correct version of code.
- **3.** Version control and validation By integrating Copia's version control features, they could manage continuous improvement projects more effectively, reducing the risk of lost code during complex changes.
- Streamlined compliance Copia's automated change tracking and robust version history helped them improve their compliance processes by ensuring every code modification was documented and backed up.

"Using Copia correctly should help improve our compliance posture as well. While we're not as heavily regulated as our customers, we're aiming to bridge gaps in compliance and change control, which Copia helps us document more effectively."

Solutions:

- Centralized code repository Implementing Copia's Industrial DevOps Platform provided them with a single source of truth for all PLC code, drastically improving their ability to locate and verify code versions.
- Automated backups Copia enabled automated, regular backups for all key devices (including Rockwell and Siemens PLCs), ensuring that they could recover code quickly and confidently.
- **3.** Version control and validation By integrating Copia's version control features, they could manage continuous improvement projects more effectively, reducing the risk of lost code during complex changes.
- Streamlined compliance Copia's automated change tracking and robust version history helped them improve their compliance processes by ensuring every code modification was documented and backed up.

"Copia enabled automated, regular backups for all key devices (including Rockwell and Siemens PLCs), ensuring that they could recover code quickly and confidently."

Benefits:

- Improved operational efficiency With automated backups and centralized version control, they reduced the time spent searching for code and ensured faster recovery from any potential incidents.
- Reduced risk of lost or outdated code Now have confidence in ability to maintain an accurate, validated state of their PLC code, reducing the risk of downtime due to incorrect versions.
- Scalability across multiple sites They can easily expand Copia's functionality to additional sites and PLCs, supporting future growth while maintaining control over code and backups.
- Enhanced compliance and change control Using Copia's features, they improved their documentation of code changes, supporting better compliance with internal and external standards.

Meet with the Copia team

Visit <u>copia.io</u> to learn how you can implement the Copia Industrial DevOps Platform in your business, or reach out for more information today at <u>contact@copia.io</u>.