COPIA

Discrete Manufacturing: Why Version Control?

How Discrete Manufacturers can gain visibility and control into their operational technology.

Why Discrete Manufacturers need Version Control
when coding industrial devices

In software development, the benefits of version control have become widely recognized: heightened productivity, increased oversight and control, reduced downtime, and enhanced collaboration.

As Version Control becomes more important for Operational Technology, many in Discrete Manufacturing are starting to look into how implementing Version Control into Industrial Technology can mitigate downtime while increasing visibility and control.

This eBook explores why Discrete Manufacturing teams should utilize a Version Control strategy. We highlight the unique challenges faced by Discrete Manufacturers and showcase why Copia is the preferred Version Control solution for Discrete Manufacturers.

Unique Challenges of Discrete Manufacturers

Discrete Manufacturers face major challenges from under staffing, increased production quotas, and integrating complex production code from multiple vendors. On top of that, downtime is the constant threat that can cause major setbacks to your bottom line.
As teams look to optimize production while mitigating downtime, increased visibility into operational technology can allow teams to better manage their industrial code, mitigate down time due to code issues, and get operations back up and running when downtime inevitably does occur.

Version Control for Discrete Manufacturers

Version Control allows you to automatically save each version of code your team produces to a communal repository. This means there is a centrally stored source of truth. No more rifling through saved files on multiple computers with multiple versions of each project to find the live code. This central source of truth allows you to see differences in versions of code and allows you to select the best one for production.

Version Control allows your team to work together, seeing what changes are being made to the code, by whom, and with context. This means you can get updates to the floor faster, with less downtime. Code break? Simply look back at the last version of the code available to get things back up and running.

Some benefits of version control include:

┓ Teams can work on the most up to date file without the risk of overwriting work

┓ Teams can merge their individual files with the current file version

┓ Teams can run true code review

These benefits lead to significant business outcomes, including:

┓ Reduced project downtime due to code errors

┓ Reusable project code for your entire operation, including multiple plant locations

┓ Reduced risk of injury, broken protocol, or safety violations due to broken programming

Unlocking Version Control for Discrete Manufacturers

This is where Copia Automation comes in. Copia allows you to store all versions of your OT code, allowing for easy access and oversight of code files.

Copia includes commenting for code reviews both for text based and graphical languages like ladder logic so you can comment on and discuss specific elements that have been modified. This empowers you to spot more coding mistakes before they reach production.

Copia also includes tooling to help with merging changes that were made during concurrent development. Copying and pasting changes between file versions can be tedious and the Copia merge tool automates this process by extracting modified project items from one project and importing them into another, resulting in a file that has the changes from both versions.

The rendering of ladder logic, with change-highlighting, can accelerate code review and makes it easy for all team members to understand the changes that have been made. Time is saved and quality is improved. Copia renders PLC code in user-friendly interfaces, facilitates collaborative reviews, and automates concurrent development merges. With Copia, the PLC landscape is empowered to leverage the full scope of Git's prowess, unlocking potential that elevates productivity, minimizes risk, reduces downtime, and fosters collaboration.

The unique demands and challenges of Discrete Manufacturers require innovative solutions. With Copia's Version Control, you can arm your engineers with a tool designed to increase productivity and drive business results.

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As the manufacturing industry continues its progression towards Industrial DevOps, Discrete Manufacturers will require Version Control to unlock their true productive potential. Interested in learning more about Copia's Version Control? Request a demo today at Copia.io/request-demo