

# Case Study

Automated build process compliant with  
CRA standards





Project

Automated build process



Technologies

Azure DevOps, SVN, GIT,  
YAML, CI / CD Pipelines



Customer

Producer of software for  
field device management



Services

DevOps-Engineering



Industry

Laboratory and factory  
automation



Period

2025 - 2026



For a well-established field device management software vendor, wetcon transitioned the existing codebase from a local, outdated version control system to a contemporary, cloud-based Git environment.

Automated CI pipelines were established based on Azure DevOps, enabling the reproducible compilation and deployment of software. This represents a significant advancement towards a sustainable ALM framework and a build process that aligns with the demands of corporate reporting and audit (CRA) regulations.



## Initial situation and challenges

The current build process was multi-stage, intricate, and closely linked to local environments.

- The source code was found on a local server within a historically developed, obsolete source code management system.
- Builds were conducted solely when necessary and exclusively on developers' local machines – lacking central traceability.

The migration ought to be swift, adhering to a constrained budget and causing minimal interference with current operations.

Furthermore, transparency, traceability, and reproducibility must be enhanced to more effectively satisfy internal compliance and CRA requirements (for instance, clear build history, controlled artifacts, and centralized processes).



## Our approach

wetcon transitioned the codebase to a Git repository in Azure DevOps Services and implemented a smooth, automated build process.

- Migrating the source code to a contemporary Git repository while preserving branch and tag history.
- Evaluation of the current local build process and strategic reuse of existing scripts to reduce risks and expenses.
- The design and implementation of CI pipelines in Azure DevOps facilitate builds that are executed in a standardized, reproducible, and centrally traceable manner.
- Aligning the process with CRA-compliant practices: version control, auditability, and regulated access to build artifacts.



platform

Azure DevOps Services serves as a central platform for code management, utilizing Git repositories, build pipelines, and artifacts.



Cleaning and Preparation

Examination of the current build process and recognition of the pertinent steps.

Eliminate obsolete build artifacts from the repository to enhance size, clarity, and security.



Migration

Migration from SVN via GitSVN

Deployment of a Linux virtual machine in Azure and hosting of a temporary Git repository.

Obtaining the code from the current SVN system through GitSVN.

Transferring the completed Git repository to Azure DevOps using the import feature.

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Establishing a CI pipeline

Establishing a YAML-based CI pipeline in Azure DevOps ("Infrastructure as Code") and saving it in the repository.

Automated assembly upon code modifications, centralized build log, uniform artifact creation

Foundation for future developments related to CD, quality assurance (evaluations, inspections), and compliance documentation.



# Technical execution



## Outcomes & Benefits



Modern Application Lifecycle Management and Source Code Management are facilitated through an integrated Azure DevOps platform that utilizes Git-based versioning, organized branch and tag structures, as well as consolidated repositories, pipelines, and artifacts.



Centralized, cloud-based management minimizes manual effort and media interruptions while enhancing data security through role and rights frameworks.



Reproducible, documented builds along with transparent change tracking facilitate CRA compliance and lay the groundwork for additional Azure DevOps services.

**Are you looking to enhance your build and release process or more effectively comply with CRA requirements?**

**Reach out to us for a complimentary consultation regarding DevOps and ALM solutions utilizing Azure DevOps.**



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