

# HOW VIAL REDUCED 2 WEEKS OF TESTING EFFORT TO AN OVERNIGHT TEST RUN WITH 100% COVERAGE

## Customer Overview

Vial is a next-generation CRO (Contract Research Organization) that delivers clinical trial solutions through an end-to-end technology platform to sponsors worldwide across all phases of drug development. Their technology-driven approach accelerates the delivery of new therapies, reduces costs, and sets new industry standards, helping biotech companies of all sizes advance clinical research more effectively. Vial is at the forefront of creating a more efficient future for clinical trials.

Vial needs to strictly comply with **FDA 21 CFR Part 11**, which specifies that organizations within the life sciences sector should safeguard the integrity and security of their digital records. This is accomplished by establishing various controls and safeguards, including authentication protocols, access restrictions, audit trails, and system validation. Vial required the PDF format documentation to be human-readable and to have the necessary screenshots.

Vial’s platform has a new software release every 2-3 weeks, and the testing effort typically lasts around two weeks during each release. They were looking to set up a separate QA team to perform all this testing manually with the help of a few internal automated test scripts. Meanwhile, they tried testRigor, which appeared to be a perfect fit for testing their life science software.

Here is what they were able to accomplish with testRigor.

100%

Automated test coverage in 6 months

2 Weeks

Saved in testing, completes the testing in a single overnight test run

Zero

QA team cost, testRigor performs all tasks single handedly

## The Problem

Vial is challenged by its rigorous software testing and compliance requirements. With software releases occurring every 2-3 weeks, the company spent approximately two weeks per release on testing, primarily manual, using over 200 test cases. More than half (100+) test cases were manually tested, depending on the release's specific needs. This extensive testing period was necessary to ensure compliance with FDA 21 CFR Part 11, which requires user-friendly, human-readable PDF reports and detailed documentation, including screenshots that match functional requirements.

This manual testing and documentation process was time-consuming and resource-intensive, creating a bottleneck that slowed down the release cycle. Vial needed a more efficient testing and documentation strategy to streamline releases while adhering to regulatory standards. The reliance on manual testing not only impacted speed but also increased the potential for errors, underscoring the need for enhanced automation and process optimization.

### Key Objectives

- Comply with FDA 21 CFR Part 11
- Have the PDF reports in a human-readable format with screenshots
- Reduce two weeks of testing effort to a minimum
- Leverage their existing engineers and bypass setting up any separate QA team
- Improve the efficiency of the release cycle
- Streamline testing and documentation

“This restriction about the tests having to be written in human-readable scripts, I think that's the part where most of the automation testing tools are a little bit behind.”



PAOLO CASTRO

STAFF SOFTWARE ENGINEER - VIAL

## The Solution

Vial chose testRigor as their test automation solution. The key selling points were scripting tests in plain English, requiring no extra infrastructure or automation expertise. Their team was trying to choose between staffing an entire, dedicated QA department or leveraging a tool like testRigor to automate visual testing at scale.

They have 148 documented test cases, which are now automated using testRigor. Vial releases software every 2-3 weeks, and this test automation has saved two weeks of person-days per release. With testRigor, they just trigger the test run in parallel overnight, and by morning, all automation testing is completed.

testRigor’s generative AI-based no-code test automation, explained in plain English, has helped Vial save on manually updating PDF reports to make them human-readable for compliance. Another feature that Vial needs for compliance is screenshots, and testRigor provides this functionality out of the box, where each test case captures the screenshot as it is executed. This solution not only streamlined the testing workflow but also ensured precision and adherence to compliance in every test cycle, significantly reducing the risk of errors associated with manual testing and enhancing overall efficiency.

“I would personally want a lot of unit tests on top of integration tests and then end-to-end. But the other side of this is a requirement of CFR Part 11. And I think that's where testRigor has undoubtedly been our best tool for it.”

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STAFF SOFTWARE ENGINEER - VIAL

### Solution Highlights

- Plain English test cases help them meet CFR Part 11 Compliance
- Provides screenshots for compliance
- Save two weeks of person-days of testing every release
- Achieve 100% test coverage in an overnight, parallel test run
- No extra infrastructure or specialized skills needed to be implemented
- Streamlined workflows, ensured compliance, and reduced errors, enhancing overall efficiency.

Before

- Manual update of PDF reports in human-readable format
- Taking screenshots was a task
- Losing 2 weeks in testing alone during a release

During and After

- Test cases are in plain English
- Out-of-the-box screenshots feature
- Testing takes only one overnight test run

## The Result

With testRigor, Vial achieved 100% automation in six months without investing in a separate QA team. The plain English-based test automation powered by intelligent generative AI makes it easy for anyone on the team to create and execute tests. The foremost requirement of Vial was to adhere to CFR Part 11 compliance regulations. Through inherent and built-in features of testRigor, they have quickly achieved those. Time-saving is a huge win; now they save two weeks of testing effort for every single release.

Partnering with testRigor allowed Vial to accelerate their test quickly and easily. The transition to testRigor enabled Vial to maintain high compliance standards while optimizing resource allocation and significantly speeding up the software release cycle.

## Summary

Objective 📌	Result 📌
More Automated Test Coverage	100% Coverage in 6 Months
Automate FDA 21 CFR Part 11 Compliance	Compliance Screenshots Are Automated
Increase Testing Speed	Two Weeks Per Release Saved By Overnight Parallel Run
Reduce Time Spent Testing	Saved Hours of Manual Testing

## testRigor can also help you

“We run all of our testRigor test cases overnight, so I usually trigger them when logging off, and I know that by the next morning, I will have them all completed.”

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STAFF SOFTWARE ENGINEER - VIAL

testRigor’s generative-AI-based no-code automation platform makes it easy for QA teams to quickly build test automation while spending almost no time maintaining tests for web, mobile, desktop, databases, APIs, AI features, and mainframe apps. Tests are written in plain English and empower anyone, with or without technical knowledge, to quickly build and maintain tests, as well as understand test coverage.