



Case Study:



Testing Legacy Software: **Automating** the Unautomatable

*„Any traditional test automation tool would have meant
a huge maintenance burden in our environment.
Drvless, by contrast, runs virtually maintenance-free.“*

Stephanie Maitz, Quality Assurance, Care Solutions GmbH

ABOUT CARE SOLUTIONS GMBH

IT company specializing in digital solutions for the healthcare sector

Locations	Headquarters in St. Veit an der Glan; Development in Klagenfurt
Founded	2010
Business Area	Development, Qualification, Support & Documentation, Product Management, Consulting, Regulatory Affairs, Quality Management, Marketing
Core Products	Nursing documentation (NCaSol), medical documentation (MedCaSol), intensive care (CCaSol)
Source Code	Acquisition of predecessor company in 2014 – Care Solutions GmbH has held full responsibility for development ever since

Care Solutions GmbH develops digital solutions for hospitals and healthcare facilities. Patidok, developed in the 2000s, formed the foundation of the product portfolio. With the introduction of nursing documentation as a standalone product, the portfolio was strategically expanded – supplemented by medical documentation and a specialized product for intensive care.



Starting Point & Challenge

What Cannot Be Automated – The Legacy Trap in Healthcare

Core system not under our own control: The underlying system is operated by a partner company – direct intervention is therefore extremely limited.

Highly dynamic programming language: The applications are based on Progress OpenEdge – a highly dynamic language, which makes traditional object recognition considerably more difficult.

High configurability: The systems are highly configurable – each customer environment can look different, which further complicates testing.

5.9 million lines of code, 80% not unit-testable: The code base, which has evolved over time, does not allow for traditional automated unit tests in most areas.

Manual, experience-based testing: Before each of the two annual major releases, a complete manual test run was required – lasting about one month, with test cases consisting of up to 400 steps.

Failed initial evaluation: A vendor with a traditional, object-based approach (identification via object IDs) failed due to the system's dynamic nature and configurability – automation was not possible.

OBJECTIVE



Reduction of Manual Testing Effort

Despite high system complexity and a lack of access to the underlying core system, manual effort should be significantly reduced.



Low-maintenance, stable tests

Regression tests should run reliably even when the UI changes – without constant adjustments to technical details.



Enablement Without Coding

The quality assurance team should be able to create and maintain test automation themselves – without any programming knowledge.

Solution: Drvless in use since 2023

Care Solutions GmbH learned about Objectis through a referral. The key advantage of Drvless lies in its AI image recognition: test cases remain functional even when the UI changes, since visual content is recognized rather than technical object IDs – for example, if only the color of a button changes, the content remains the same and the test continues to run. This keeps maintenance efforts to a minimum – something that was missing during the initial evaluation of the other provider.



Features used by Care Solutions GmbH

User interface recognition: Test runs continue to operate stably even if the styles of controls or the layout of elements have changed – and even if new, different (internal) IDs have been introduced in the latest development release.

No-Code Creation: Test cases can be created using Capture & Abstract and transferred directly to Drvless for execution – no programming knowledge required.

Execution Lists & Scheduler: Automated test runs (nightly smoke tests, weekly regression tests, stability checks) are grouped into packages and executed directly via the CI/CD system (Jenkins) at regular intervals.

Xray Integration & Dashboard: Test results are displayed and monitored in a dashboard plugin integrated with Jira, which has been configured according to the desired requirements.

„With Drvless, over 50% of our tests will be automated in the future, which will save us a significant amount of time and give us greater transparency.“



Stephanie Maitz
Quality Assurance,
Care Solutions GmbH



Operating Model in Practice



Automated Preparation

The test environment is automatically prepared by Drvless: Setup download, setup deployment, and backup creation are performed using custom-built scripts.



Four test runs per night:

smoke tests with multiple program versions, regression tests (weekly), and stability checks run completely unattended between 8 p.m. and 4 a.m.



Error Logging with Screenshots

Every step is logged – complete with a screenshot and the instruction that failed. This allows subsequent error analysis to build directly on this information.

RESULTS & BUSINESS IMPACT

Time savings: Care Solutions GmbH estimates that up to **75% of the previously manual tests** can likely be automated. This frees up time for more complex tests. ✓

Greater release stability: Nightly smoke tests, weekly regression tests, and stability checks increase **confidence before every major release** – fully automated and unattended. ✓

Reduced workload for the QA team: Less routine work, **more time for complex test cases and further development** – the QA team is freed from repetitive testing. ✓

Bugs found that would not have been detected manually: Drvless uncovered configuration errors that were invisible in the normal test setup – because **it simulates the real user environment**, not just the internal test environment. ✓

About Drvless & Objentis

A New Approach to Test Automation

Drvless is an AI-powered visual test automation agent that enables technology-agnostic, non-invasive end-to-end test automation across web, desktop, and mobile - without any programming knowledge. Objentis has been supporting companies in software testing and quality engineering since 1999. Objentis developed Drvless as a scalable automation solution for complex system landscapes.

„Drvless finds critical defects that would not have been detected during normal manual testing.“



Stephanie Maitz
Quality Assurance,
Care Solutions GmbH



... recognizes, interacts with, and interprets applications just like a human.

A Selection of Our Clients



Would you like to see how Drvless can automate testing of your business-critical user journeys?



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