

# CASE STUDY

## **AUTOMATION FRAMEWORK SOLUTION FOR A HEALTHCARE COMPANY**

### **Client Background**

Our client is a publicly traded company that offers practice management and electronic health record technology, including electronic prescribing, care management, and revenue cycle software to physician practices, hospitals, and other healthcare providers.

The company is dedicated to providing the best possible client experience. It supports 180,000 physicians in 50,000 practices, 1,500 hospitals including 100% of US News & World Report's "Honor Roll" hospitals and 10,000 post-acute care organizations. The scale of its client base enables them to connect providers and patients wherever care is delivered – in the hospital, in the clinic, in post-acute care facilities, or in the patient's own home.

Nearly one-third of practicing U.S. physicians and more than 1.5 million hospital clinicians use our client's products.

### **Business Challenge**

The client wanted to gather information to tailor more vehicles to the demands of their customers. They approached SoftServe for help with an auto-specific solution that would enable them to understand and measure demand for new vehicle or model refresh before takeoff.

**softserve**

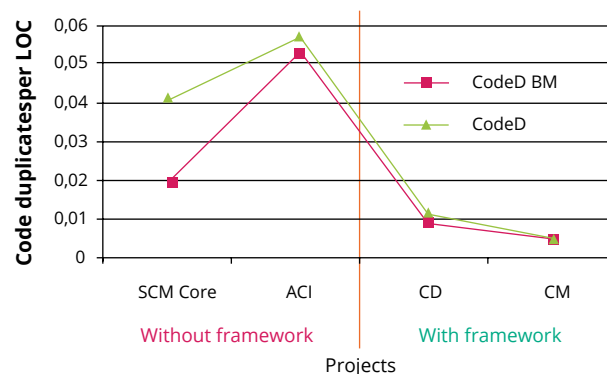
## Project Solution

Our Client reached out to SoftServe to conduct a deep analysis of specific projects (ten applications), built on Microsoft and Apple stacks in order to deliver a number of proposed solutions to satisfy the majority of their needs.

The solution included documented reusable practices, built with project independence and UI instrument/technology independence in mind, as well as a set of project specific components. The Automation Framework solution included the following main principles:

- Flexible and future-proof. The software component was developed with the understanding that new features both on the level of common logic and project specific logic can be added in the future.
- Application agnostic. Basic modules were pluggable for any project with a User Interface, regardless of the business logic and specifics.
- Technology agnostic. Numerous tools in the market can be used to interact with the user interface. Depending on the application, the best UI instrument will vary – mobile platform, web based solution, or desktop application.
- Support for the structured and modular programming model that was easy to install and use.

One of the challenges in automated testing development is code duplication. After the framework was established, code duplication metrics were gathered from several old (SCMCore, ACI) and newly developed (CD, CM) automation projects. The graph shows the relation of the duplication metric, collected by Microsoft Visual Studio, and lines of code. The red line indicates code duplication on the business level and the green line indicates duplication on the entire solution. The goal is to have the least amount of code duplicates for better maintainability of the solution.



As demonstrated, new projects had a great improvement in the code duplication metrics. On average, projects duplication rates were improved 4 times.

## **Business Value**

As a result, the framework components and practices were embedded on several different projects with different management and distributed teams. Distribution of the teams allowed for an easier transfer of knowledge regarding the automation between the projects.

Having the same practices reused across the company allowed shorter ramp up periods for new developers and better re-usage of resources across the company. Additionally, a center of excellence was established in the company to capture the most frequent issues and provide fast resolutions and better support.

## ABOUT US

SoftServe is a digital authority that advises and provides at the cutting-edge of technology. We reveal, transform, accelerate, and optimize the way enterprises and software companies do business. With expertise across healthcare, retail, media, financial services, software, and more, we implement end-to-end solutions to deliver the innovation, quality, and speed that our clients' users expect.

SoftServe delivers open innovation—from generating compelling new ideas, to developing and implementing transformational products and services.

Our work and client experience are built on a foundation of empathetic, human-focused design that ensures continuity from concept to release.

We empower enterprises and software companies to (re)identify differentiation, accelerate solution development, and vigorously compete in today's digital economy—No matter where you are in your journey.

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