

# Case Study

Mobile Pump Drive Management App





Project

Mobile Pump Drive  
Management App



Technologies

.NET MAUI (Android, iOS,  
Windows), Bluetooth/BLE



Customer

Global pump  
manufacturer



wetcon  
Services

Software engineering,  
application development



Industry

Mechanical and  
industrial  
engineering



Period

2016 - present



Wetcon developed an application for a globally operating pump manufacturer that enables the intelligent parameterization, monitoring, and commissioning of pumps and drives directly at the facility.

Communication with the pump occurs through both traditional Bluetooth and Bluetooth Low Energy (BLE). Utilizing .NET-MAUI technology, the application operates across platforms on iOS, Android and Windows, integrating all essential pump parameters and operational data into a single interface – entirely wirelessly, ensuring that service and commissioning teams have all critical information accessible on their smartphones at all times.



## Initial situation and challenges

Until now, pump parameterization and diagnostics were conducted using stationary, less intuitive tools – a mobile solution directly at the facility was absent.

Various pump series and device configurations should function effectively within a single, uniform application.

Utilization in industrial settings that require high reliability, an intuitive interface, and rapid operation during service requests.



## Our approach

Development of a mobile application for parameterizing, monitoring, and commissioning pumps directly at the facility.

The application assists users in navigating standard service workflows, allows for the reading and adjustment of parameters, and facilitates the verification of status and error messages – tailored for service and operations staff.

# Technical Execution



Architecture platform

.NET MAUI serves as a cross-platform framework for Android, iOS, and Windows, featuring a well-organized, MVVM-oriented architecture that facilitates the separation of UI, logic, and communication.



Programming Languages

.NET / C#



Communication

Bluetooth/BLE connectivity for direct linking of pumps and drives



Interfaces / Protocols

Implementation of communication protocols specific to manufacturers for parameterization and monitoring through an integrated device gateway.



UX/UI focus areas

Intuitive parameterization displays featuring well-organized parameter lists, guided commissioning processes, and distinct status and diagnostic views, specifically tailored for on-site application (rapid orientation, excellent readability, minimized complexity)



## Outcomes & Benefits



Accelerated commissioning and parameterization of the pumps directly at the facility using a mobile, guided solution.



Enhanced clarity concerning the status, operational data, and any error notifications of the pumps for service and operations teams.



Scalable, future-ready architecture built on .NET MAUI, allowing for the incorporation of extra functionalities and various device types.

**Are you considering a mobile solution for the configuration or monitoring of your products?**

**Reach out to us for a complimentary consultation regarding cross-platform applications using .NET MAUI.**



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