



ZFabrik Software

ZFabrik Software GmbH & Co. KG, based in Germany, builds Java-based serialization software for pharma and shop floor track & trace, with a flagship platform that handles product lifecycle compliance across complex packaging hierarchies.

About ZFabrik

ZFabrik Software develops software in the area of Track & Trace, with applications used for pharmaceutical and general shop floor serialization. Their flagship product, zf-work, is a live, continuously evolving platform that manages product serialization, aggregation, and regulatory compliance — including Russian regulation crypto codes — across complex packaging hierarchies. All applications are Java-based with a strong focus on backend and background processes, targeting power users who need highly capable, modular interfaces.

"ZK's stable client-server architecture and powerful MVVM data binding are exactly what we need for modular, power-user interfaces."

Track & Trace Serialization with ZK

ZFabrik began using ZK approximately two years ago to build user interfaces for their Track & Trace serialization platform, zf-work. The platform supports pharmaceutical manufacturers in managing product master data, serial number pools, production orders, aggregation hierarchies, and regulatory reporting — all within a highly modularized Java architecture built on their own z2-environment runtime, hosting Spring, Hibernate, and ZK.

The projects are live and continuously improved, with no end in sight — a testament to the platform's ongoing critical role in pharmaceutical serialization operations.

Why ZK

ZFabrik had been using Vaadin since 2011 across their own and related projects — which worked well. However, the migration

to Vaadin Flow changed the equation. Upgrading to Vaadin Flow seemed to require as much effort as porting to an entirely different framework. This prompted the team to re-evaluate their options and ultimately discover ZK. What they found was a framework that matched their priorities precisely: simplicity of modularization, straightforward data integration, and fast development and adaptation — more important to their team than scalability at scale, minimal resource usage, or highly polished aesthetics.

“ZK requires no special build tooling, keeping the development workflow lean and efficient.”

The Challenge

When asked about the challenges of their project, ZFabrik's answer was simple: "It's not ZK." For a team running a live, continuously evolving platform in a highly regulated industry, that says a lot.

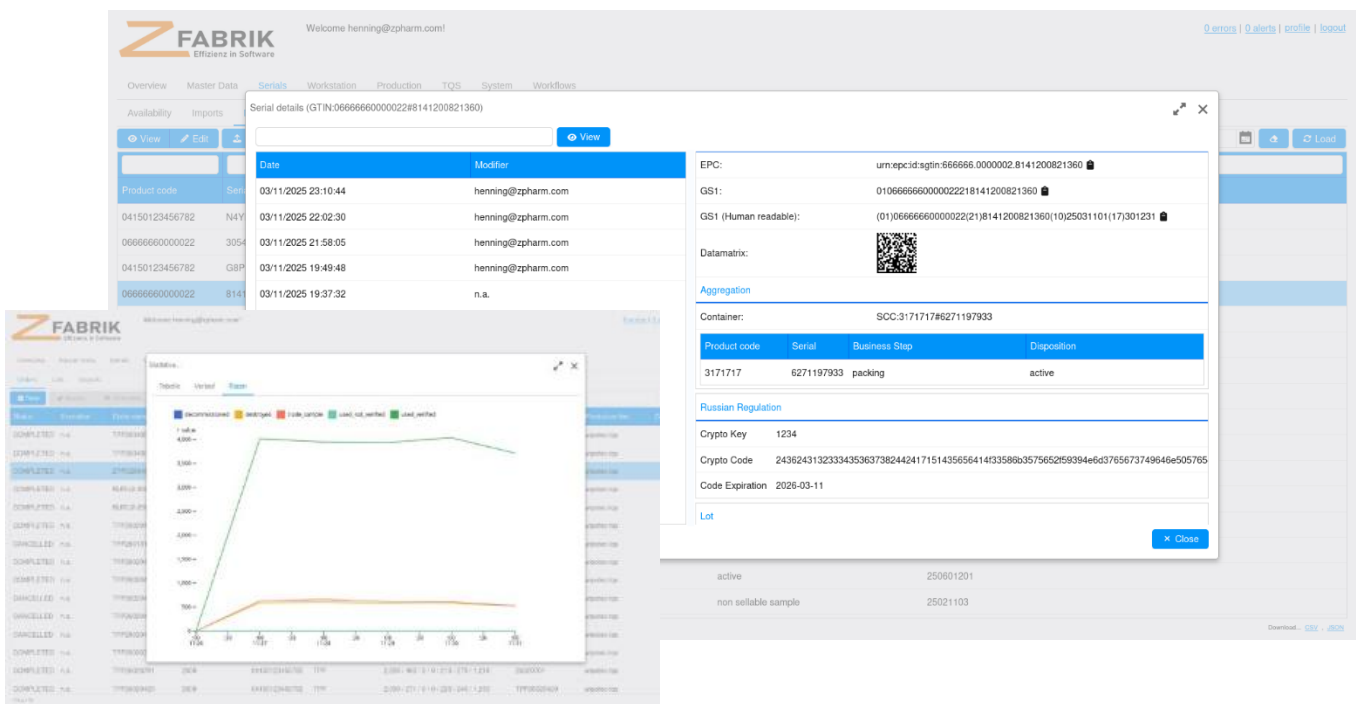
What ZFabrik Values in ZK

- 1. MVVM with Powerful Data Binding:** ZK's approach to MVVM, with its powerful data binding feature, is a standout strength for the ZFabrik team. It allows clean separation of UI and business logic across a large, modular codebase.
- 2. Stable Client-Server Architecture:** ZK's stable client-server architecture gives ZFabrik confidence in building and maintaining a production platform that runs continuously in live pharmaceutical environments.
- 3. Simple and Flexible Java Integration:** ZK's simple and flexible use in Java applications — supporting both programmatic and declarative usage without requiring Maven plugins or hard-coded web application layouts — integrates seamlessly into ZFabrik's own z2-environment runtime.
- 4. Effective Modularization:** ZK enables effective and simple modularization of user interfaces using standard Java features alone — no special compilers or Node.js required. This directly supports ZFabrik's highly modular architecture.

5. Extensibility Without Overhead: ZK's extensibility — including add-ons, composition, custom components, and widgets — requires no special build tooling, keeping the development workflow lean and efficient.

The Result

For ZFabrik, using ZK has enabled them to preserve efficiency in user interface development across a highly modularized, large codebase. ZK is now set as the UI framework for all of their projects. The zf-work platform — covering everything from product master data and serial number management to production statistics and Russian regulatory crypto code compliance — is built entirely on ZK and continues to grow in scope and capability.



About ZK

ZK is the leading enterprise Java Web framework with more than 2,000,000 downloads. ZK is deployed by a large number of Fortune Global 500 companies, including Barclays, Deutsche Bank, Sony, Sun Microsystems, and Toyota, providing them with the ability to rapidly create rich Ajax enterprise level applications.

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