

CASE STUDY

Leading Pharmaceutical Company, Bath ASU, Uses Event Sourcing to Create Iron-Clad Audit Trails

From a data integrity point of view, what makes event sourcing so attractive is how it supports the strictest audit trail requirements.

Background

Bath ASU is a pharmaceutical manufacturer based out of Corsham Town in Wiltshire, England. Initially founded in the University of Bath's education sector as an education, training, and R&D resource in 2000, they are now one of Britain's leading private mid-market growth companies.

Today, Bath ASU provides a complete range of aseptic manufacturing services and produces life-changing medicines administered to patients in hospitals or at home throughout the UK.

The Challenge

Like all pharmaceutical companies, Bath ASU relies heavily on big data. From research and development to ensuring safety and data requirements are met, even a small error, such as missing or duplicated datasets associated with a patient's record, can have grave consequences.

For Bath ASU and its development team, data quality is everything, and this includes having immutable audit trails. When you are responsible for a patient's health and meeting strict regulatory requirements, there's no such thing as "good enough."

"We were operating on a Microsoft SQL Server environment," said Rich Knight, Lead Developer at Bath ASU. "When information in the database was updated, the previous data would be overwritten. It was evident we needed a better solution: a historical record that was impossible to change."



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— Rich Knight, Lead Developer

The Solution

In 2012, at a conference in London, the development team learned about a pioneering architecture for storing data. Known as Event Sourcing (ES), data is stored as a sequence of events rather than just in tables, such as in a standard table-driven solution.

The benefits were clear. ES not only ensured perfect audit trails but also promised greater flexibility, scalability, and the ability to adapt quickly to changing regulations.

The event sourcing technology, provided by Kurrent, the leading stream database company in the world, was eagerly adopted. Bath ASU rolled out ES into a hospital dispensing system, its internal manufacturing tracking systems, online ordering systems, as well as other use cases.

100% Provable Audit Trails

“Before using Kurrent’s ES technology, when a change was made to an audit trail today, there was no way to know the audit trail had been updated. It resulted in two sets of data, which appeared to be the same to others within our system. With ES, we know the life this is impossible as there is always a trail of every change.”

“From a data integrity point of view, what makes event sourcing so attractive is how it supports the strictest audit trail requirements,” he continued. “Our audit trails are immutable and the one source of truth in our system.”



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— Rich Knight, Lead Developer Regenerate



Ensuring Data Quality for Regulatory Compliance

Pristine data is critically important for pharmaceutical companies. ES guarantees quality, product safety, and continuous improvement, which are essential in regulatory fines and damages to a company's reputation.

With ES, all events can be traced back to their origin, providing a solid foundation for accountability. Audit trails that are 100% provable, Bath ASU can satisfy regulatory requirements by providing historical logs.

ES provides a flexible and scalable solution that guarantees the success of data-driven efforts. "I can't see why anyone would look elsewhere," said Rich.

→ About Bath ASU

- Founded in 2001, Bath ASU is a pharmaceutical specials manufacturer based in Corsham, Wiltshire.
- Provides a complete range of aseptic manufacturing services.
- Produces life-saving medicines administered to patients in hospitals or at home throughout the UK.
- Implemented Kurrent's event sourcing architecture in 2012.

→ About Kurrent

Kurrent provides an event-native data platform that stores and streams real-time, business-critical data with historical context in fine-grained streams, from origination to destination, for optimal AI, analytics and application outcomes. Kurrent is available on AWS, Microsoft Azure and Google Cloud Platform and as an on-premises solution. Headquartered in San Francisco, Kurrent's event-native technology is deployed in high stakes use cases in finance, SaaS, oil and gas, manufacturing, retail, healthcare, automotive, government and many other industries globally. **Illuminate your business™**

→ Contact Info

To learn more about how Kurrent can help your business succeed, visit us at [Kurrent.io](https://kurrent.io). We offer support, training, and consultancy services for implementing event sourcing architecture with our core product, Kurrent.