

Case Study



WineDataSystem

WDS Revamps its Resource for Wine Professionals in Less Than Four Months

INDUSTRY

IT

USE CASE

Master Data Management (MDM)

GOAL

To create the most comprehensive wine reference resource possible

CHALLENGE

No existing reference resource, a huge volume of information and issues concerning ease of access and flexibility for users

SOLUTION

Rewrite solution code in Neo4j to get a real-time responses to requests

RESULTS

- + 20,000 different wine references
- Database and reference resource evolve in real time

The Company

Established in 2011, WineDataSystem (WDS) offers the first sales automation tool dedicated to the wine industry. Through its product information management software and CRM, it provides a better way for wine professionals — such as traders, brokers and importers — to manage their supply chains. The company concentrates on four areas of expertise: web development, mobile development, wine data management and integration of the professional application Odoo.

The Challenge

Until now, the world of wine has never had a complete reference resource. Traders had to refer to a disparate array of databases in different formats, developed by different organizations and localized for different regions. The same wine can even have different names depending on the distribution network, making it difficult to track.

To address this, WDS gathered all available, disparate wine data — thousands of data points covering everything from appellation to color — into one database. This would provide wine professionals a quick, accurate and broad overview of all available wine.

This was a huge task, and due to the small size of the company, it needed to find a solution that would be inexpensive, easy to use and online quickly,

WineDataSystem had been relying on an operating model based on SQL, Windev and PostgreSQL, a triple technology solution that had some major drawbacks. The lack of flexibility made modifying a field, changing a link or adapting the data model a Herculean task.

There were also some serious issues with performance. Interlinking data from extremely varied sources made handling the data cumbersome and time-consuming. A mere three-page request could take five seconds to return a response.

Aymeric Fournier, founder and CEO, recalls: "Our challenge wasn't just about managing large volumes of data, but addressing issues concerning ease of access and flexibility for users."

The Strategy

To find out how to best meet their customers' needs, they conducted a survey which revealed that real-time responsiveness was a key feature of any product they would use. With this knowledge in hand, they began to search for a variety of possible solutions.

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– Aymeric Fournier,
Founder and CEO
WineDataSystem

They first explored Master Data Management (MDM) systems, but realized that because these most closely mirrored SQL, the systems would not provide the responsiveness and ease of use that they needed.

The team next moved to graph-based technology and specifically Neo4j — the most widely used graph database on the market — and it quickly became clear that they had found their solution.

The Solution

Neo4j allowed WDS to manage a huge volume of data from a disparate set of sources while still being able to perform queries in one hundredth of a second. This, combined with its user-friendly interface and flexibility, led the company to rewrite its entire solution code surrounding Neo4j.

“We definitely made a technical choice, since Neo4j lets us manage very complex data from varied sources with handling times that are a hundredth of a second,” explains Fournier. “But beyond the purely technical aspect, our choice was also guided by our start-up mentality: We wanted a modern solution that lets us explore infinite possibilities.”

The first deliverable solution appeared at the end of 2014, less than four months after the initiative was launched.

The Results

Because of the system developed by WDS, the company can now offer a software package for wine brokers, a tablet with the solution for wine sellers, and an interface to manage wine reference resources that can evolve in real time.

“For everyday products, a simple barcode is enough,” Fournier explains, “But wine is far more complex. Different appellations for the same wines and different labels all need to be managed as well. And for our customers, this represented a full-time job for one of their employees. Since we transferred our solution to Neo4j, there’s no more need for this type of work and the member of staff can undertake tasks that are more in keeping with what’s at the heart of the business, increasing productivity.”

Confident with its development on Neo4j, the solution offered by WineDataSystem today manages a total of 20,000 different wine references.

Neo4j is the leader in graph database technology. As the world's most widely deployed graph database, we help global brands – including [Comcast](#), [NASA](#), [UBS](#), and [Volvo Cars](#) – to reveal and predict how people, processes and systems are interrelated.

Using this relationships-first approach, applications built with Neo4j tackle connected data challenges such as [analytics and artificial intelligence](#), [fraud detection](#), [real-time recommendations](#), and [knowledge graphs](#). Find out more at [neo4j.com](#).

Questions about Neo4j?

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