

# NASDAQ OMX

Addresses a complex and growing requirements framework with Micro Focus® Caliber

## Overview

NASDAQ OMX is the world's largest exchange technology provider, powering one in ten of the world's securities transactions. The company's integrated multi-asset trading and clearing platforms are the world's fastest and most scalable, enabling the trading of any asset anywhere on the planet. Innovation and technology drive its business, and NASDAQ OMX is proud of its many technology accomplishments.

## Challenge

A variety of disconnected requirements sources and repositories made it challenging for NASDAQ OMX to maintain centralized control and visibility of requirements for Genium INET trading and clearing solutions. This posed potential risks of missed requirements, leading to overruns caused by unnecessary rework.

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### RICKARD RICKARDSSON

Global Software Development  
NASDAQ OMX

The Genium INET development function was looking for ways to streamline and improve its development platform as a whole, and one of the first items to be considered was requirements. Previously, the development team had used Microsoft Word to record requirements. This carried a high administrative overhead and made it difficult to track changes in requirements, especially in a multi-user environment. The team investigated the market for a tool that could handle this intelligently. As Rickard Rickardsson, Development Manager, Global Software Development, NASDAQ OMX, explains, “Our goal was to maintain a single, central repository for all requirements, capable of handling multiple versions of multiple products for multiple customers.” The ability to deliver products that meet specific customer scenarios is a valuable part of NASDAQ OMX's offering, and, “this means that we have to organize and manage a complex, and growing, set of functional and non-functional requirements.”

Among the business challenges facing the Genium INET development team was the need to track changes to requirements and to track requirements down to code. “Traceability was a core requirement for any system we might implement,” says Rickardsson. “We needed the ability to maintain a separate ‘product code track’ where we record all the features implemented for the various deployed systems.” This would be used to identify the difference in functionality



## NASDAQ OMX®

### At a Glance

#### ■ Industry

Financial Services

#### ■ Location

Sweden

#### ■ Challenge

The organization needed centralized control and visibility of requirements.

#### ■ Solution

Use Caliber as a cost-effective requirements solution that can integrate with many toolsets.

#### ■ Results

- + Improved developer productivity
- + Introduced a centralized repository that handles multiple versions of multiple products for multiple customers
- + Improved application quality

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between releases, functional specifications as part of contracts and a way to add test cases to each requirement to provide QA coverage for the product.

### **Solution**

An RFP was issued for an entire integrated development platform to include requirements. After evaluating the responses, Caliber was selected based on the key criteria of functionality, integration with the other toolsets and price. In fact, as Rickardsson explains, Caliber’s integration capabilities made it a constant feature of the development platform as things changed around it. “We went through a number of technology shifts—starting with Java, moving to .NET and then back to Java. Whereas we had to change the other toolsets, Caliber remained consistent throughout the changes.”

### **Results**

Since implementing Caliber, NASDAQ OMX has experienced a number of technical and commercial benefits. Development productivity has improved as itemized requirements made it easier for multiple developers to work with requirements simultaneously. For Rickardsson, the primary gain in the first instance was the ability to quickly generate Detailed Product Descriptions to show the features his team delivers, and tests, for any specific customer. This gives the development team a way to rapidly see which features are used by which

customers, and as Rickardsson indicates, “Caliber gives our sales teams a rich source of information for sales proposals and commercial contracts. Our products are better documented than before as we make heavy use of the document factory.” This involves the nightly generation of MS Word documents for non-Caliber users, making it easier for developers, testers and customers to get an accurate and easy-to-read view of requirements.

By tracking dependencies between requirements, there is less risk that any code changes prompted by a new requirement or a requirement change will be missed. “We probably spend more time structuring requirements than before,” Rickardsson points out, “but we get that time back. It’s a good investment. With Caliber, we have seen that design studies are faster, and testers can find the information they need much quicker. The result is better quality applications for our customers.”

The benefit of a single, robust repository for requirements is felt beyond the development organization—by sales, testing, product management, and ultimately by Genium INET customers. Caliber is instrumental in enabling NASDAQ OMX to follow a reuse strategy, reusing application code and test cases across both the core product and the customizations the company delivers to its customers—improving quality, productivity and customer satisfaction.



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