

Automated White-Box Tests for a CUDA-Based System in the Cloud

Automation testing

White-box testing

CUDA NVidia

Cloud

Customer

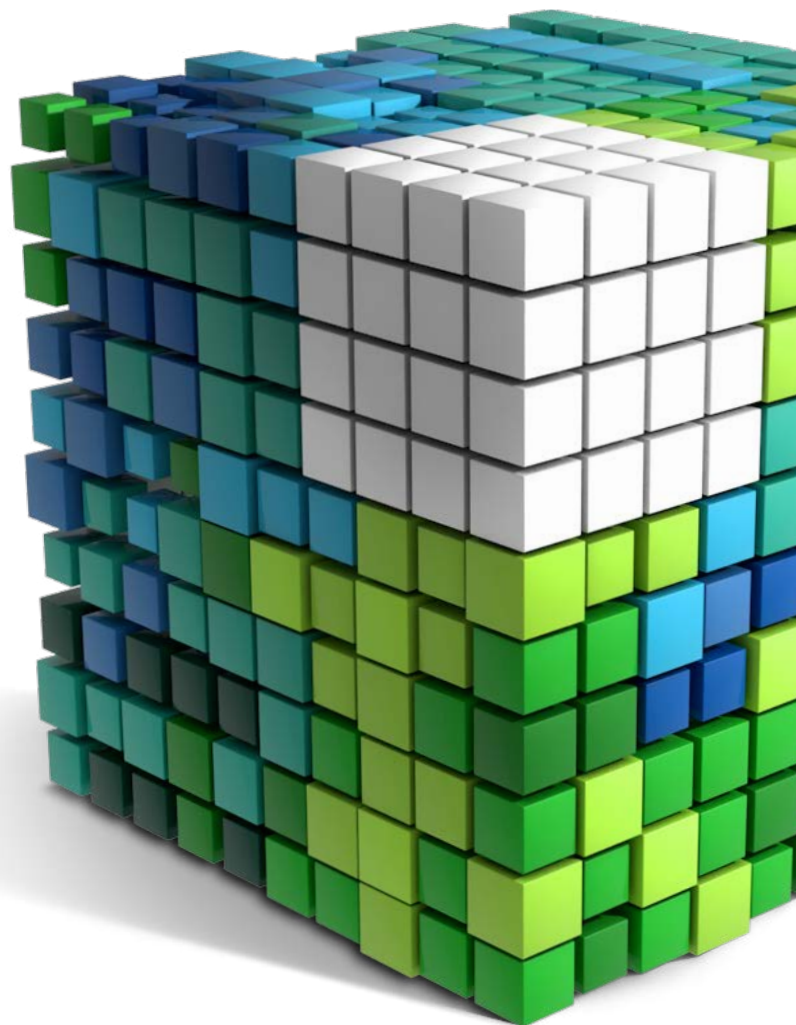
The Fortune 500 global provider of risk management services, insurance and reinsurance brokerage

Industry

Financial services

Challenge

Minimization of QA cost spending while applying alternative approaches including automated white-box testing



Solution

ELEKS delivered a complex CUDA-based system for financial modeling which became one-of-a-kind on the financial market. While thoroughly developing and adjusting the supercomputing system to meet market needs, we faced booming but rather pleasant challenges for our customer:

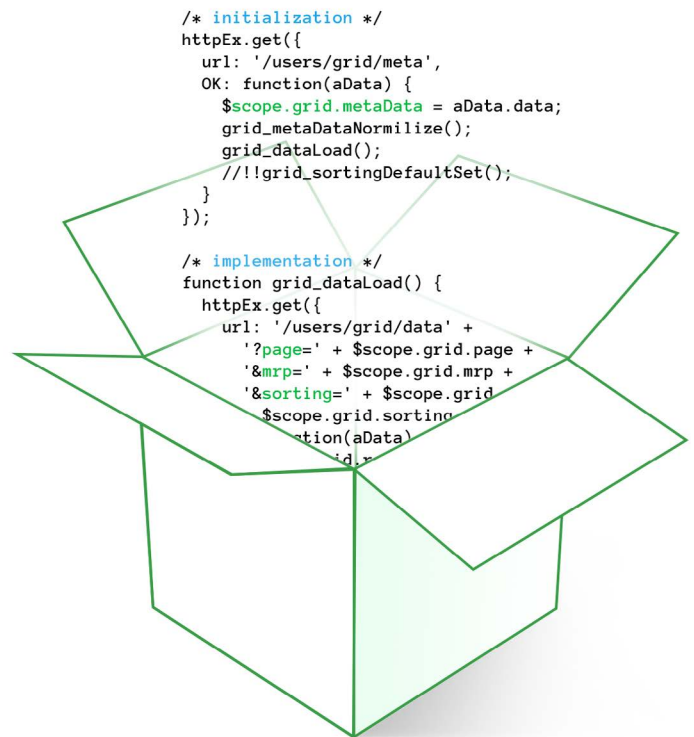
- functionality was continuously streamlined and enlarged;
- number of end-users was rapidly growing;
- end-users' queries were increasing exponentially.

As a result, our team of Quality Engineers had a major upscale from 2 to 5 (6 at peak loads). The cost for QA reached 40% of the total project budget!

Since the critical point was a system back-end, the ELEKS team changed its perspective toward far more efficient approach, automated white-box testing.

Business Benefits

- Increased system quality rate by minimum 5 times based on quality of testing metric
- 100% business logic coverage with automated white-box testing
- Complete requirements coverage through Traceability Matrix establishment
- Shorten time to market due to time savings on testing by 20 times
- Reduced cost nearly to zero on automation testing support
- Lowered IT budget by 30 %
- Reduced number of QA engineers from 5 to 1



Tools and Technologies

Application

TeamCity	.Net / C#
Git	C++
Python	

Testing

NUnit	Nosetests
GoogleTest	PowerShell / bash

Find us at eleks.com
Have a question? Write to eleksinfo@eleks.com

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