



Software  
Testing  
Bureau

# TESTING AUTOMATION

CASE OF BANCO REPÚBLICA ORIENTAL DEL URUGUAY (BROU)

In 2005 Banco de la República did not have the resources to manually test its growing IT systems. Therefore they decided to expand their capacity, which would allow them to deal with a greater number of systems in order to automate its functional testing, and establish performance tests for the critical systems. **With the STB Testing project they were able to minimize the risks associated with the production environment**, which could bring problems to the Bank's reputation, among other risks.

*"At BROU we had no automation in place; neither Functional nor Performance or Stress. In fact, we did not have any environments in the test area for that purpose, so we shared environments with development,"* mentioned Mercedes Tarabal, Operational Transformation Manager at BROU.

On the other hand, they needed to establish environments, processes and tools to insure the adequate analysis of the application's performance before releasing to production, when changes were introduced to the application software or to the environment. *"We also wanted the decision making process done by the Test Managers based on real data obtained through repeatable testing"*.

*"For financial institutions as ours, the correct functioning of its systems is one of the most important pillars to increase our client's sense of trust, safety and prestige."*

## The starting point: Functional automation

In 2007, STB began its work in the testing automation project, for which its first milestone was the presentation of the results obtained in the regression testing on critical transactions of the Foreign Business (NEX) application.

In addition, specific tools for performance testing were incorporated which allowed the Bank to establish testing procedures associated to the application's performance load, it must support.

Afterward **STB** focused on more advanced performance tests such as real-time performance monitoring.

*"Today, the systems that are critical for the bank's operation have been automated or are in the process of being automated"*

**Federico Talento, PMP**  
Senior Adviser, STB



*"Among the different projects, we changed the hardware, and functional and performance testing detected problems in the new equipment. Functional and performance testing were really helpful"*

**Eng. Mercedes Tarabal**  
Operational Transformation  
Manager at BROU

## Relevant data of the Project

- Automated testing in various machines at the same time, like a robot, taking advantage of non-working hours.
- 4.000 end users, connect to BROU systems.
- Data entry and validation with every test.
- Software quality analysis.
- Timely report delivery.

## Business achievements

### HIGH USER COMMITMENT



Mercedes Tarabal values the level of participation of bank users within the framework of the functional tests. They have developed a high commitment to the results of each project, based on the rapid and visible results obtained.

### AUTOMATIC PROGRAMMING AND PERFORMANCE



Users have adopted the test process, allowing the robot to program and execute different regression tests, on different scenarios without them having to be there physically, and only providing test data information.

### PRODUCTIVITY



"Automation also helps the internal Testing Area effort with bulk data loading, and allows us to be more efficient and fast in the manual functional testing," Mercedes Tarabal.

### AUTOMATED CRITICAL APPLICATIONS



The Bank's critical application tests are automated, and for each application, there is an updated set of tests with the business's most critical functionalities, covering transactions and data, which allow us to test complete business cycles without end user's intervention.

### TIME SAVING FOR THE END-USER (OF THE BANK)



The automated regression tests are 100% repeatable and are performed every time before each release. "The end-user saves valuable time by not having to run manual tests, avoiding system errors," says Mercedes Tarabal.

### ONGOING IMPROVEMENT IN OTHER AREAS OF THE BUSINESS



The prospects of moving forward with the imminent release of a new core banking solution are to work with the users in the automation of functionalities in new areas. This is in line with the bank's goal of working on the ongoing improvement of the systems in pursuit of an excellent customer service.

"Our users can use the systems and they work fine.

If the systems wouldn't work, the trust in our institution would be at stake,"

**Eng. Mercedes Tarabal**  
Operational Transformation  
Manager at BROU



"The STB team is certified to use the tools, has experience, has done a great job at the Bank, they know how to use the systems, and deliver. They worked well with the local Bank's team."

**Eng. Mercedes Tarabal**  
Operational Transformation  
Manager at BROU

#### CASE

Software Testing Automation

#### INDUSTRY

Banking

#### COUNTRY

Uruguay

#### TECHNOLOGY USED

Testing Automation Robot. IBM Rational Functional Tester and Rational Performance Tester.

#### PROJECT DURATION

Planning since 2005.  
Execution since 2008.

#### MODALITY

In Situ (in the BROU office)