



## SUCCESS STORY

Our client a Professional patent searcher; users who frequently need to perform in-depth patent and Industrial design searches

Automate Patent search application  
using Selenium

[www.bemore.ch](http://www.bemore.ch)

## About the Client

Our Client manages application which holds a huge database of patents. All these patents can be searched/analysed by the users who register to the application. Patents can be searched by variety of Search filters which helps in getting accurate results.

Similar patents can be grouped and can be analysed using various graphical reports with historical data. These patents can also be exported to different file formats.

## Challenges

- Various changes happening to the Orbit application at a rapid pace – regression testing has been time consuming.
- The Orbit team has come up with automating the regression suite using the Selenium tool.
- However, as the application has lot of dynamic IDs, maintaining the test scripts has been a overhead. Also, there are certain graphs in the tool for which the loading time was dynamic, which resulted in failure of scripts.

## Project Scope

The scope of this project is to automate key modules in the application.

- Use Selenium to automate the test cases.
- Usage of Continuous Integration (Jenkins) in CentOS.
- Refer to a known ID and DOM path in the automation scripts.
- Scalable and easily maintainable code.

## Our Solution

### To reduce the maintenance efforts of the test scripts BeMore has used below solutions

- ✓ **Page Object Model**  
The scripts are written using Page Object Model which helps the code more readable, maintainable and reusable.
  - As per this Framework, the operations and flows in the UI are separated from verification. This will make the code cleaner and easy to understand.
  - Code becomes less and optimized because of the reusable page methods in the POM classes.
  - Methods get more realistic names which can be easily mapped with the operation happening in UI.
- ✓ **Break Jobs as per Test suites**  
Modular and distributed design are good programming practices and that is applies to Jenkins deployment as well. Breaking a single build process into small processes allows reusability of generic jobs across multiple releases. For Orbit, we have one job-one Test suite model which allows us to run/schedule selected Test suite.



## ✓ TestNG

This framework is incorporated to the Selenium scripts. Below are the major advantages of TestNG:

- Annotations are easier to understand
- Test cases can be grouped more easily
- Parallel testing is possible
- TestNG Reports

## ✓ Ant Build

In order to automate the complete build, we integrated Ant Build.

Ant is a tool that automates the software building process. The tool works on the principle of targets and dependencies defined in the XML files. Ant libraries are used to build the applications. Below are few benefits of using Ant:

- **Ease of Use** – The tool provides a wide range of tasks that almost fulfils all the build requirements of the user.
- **Platform Independent** – Ant is written in Java thus is a platform independent build tool. The only requirement for the tool is JDK.
- **Extensibility** – As the tool is written in Java and the source code is freely available, user is leveraged with the benefit to extend the tool’s capabilities by writing java code for adding task in Ant Libs.

## ✓ Scheduling

Jenkins provides a Schedule build plugin, which will enable to schedule the jobs to run at a specific time (Daily/Weekly/Monthly). This plugin is already installed to the application-Jenkins environment.

## ✓ Usage of Waits

- The Selenium script uses the “Fluent Wait” method. This defines the maximum amount of time to wait for a condition, as well as the frequency with which to check the condition
- Furthermore, the user may configure the wait to ignore specific types of exceptions whilst waiting, such as “NoSuchElementExceptions” when searching for an element on the page.

## Staffing and Efforts

Project Manager	Tester
1	1

## Client Benefits

- Reusability
- Helps find bugs in the early stages of software development
- More reliable and quicker.
- Achieves detailed product testing with significant reduction in test cycle time.
- Reduced maintenance cost
- ROI



**BeMore**



## Testimonials

“Great Job done. The scripts looks good and helps us in running them without any errors. The coding standards are as per our expectations”

----- By CTO

## About BeMore

BeMore is a Swiss-based company offering its IT expertise to a wide variety of businesses around the world since 2004. BeMore has dedicated development centre in Bangalore, India that caters to the demanding business needs and expectations of the customers by providing quality and efficient IT solutions. We collaborate closely with our customers to understand their business needs and assist them to define solutions and use power of IT in their business. We have about 1000+ employees in France, Switzerland, UK, Dubai, Spain and India.

Our Core Competencies:

- ✓ Web Solutions (eCommerce, B2B, B2C, SEO/SMO)
- ✓ Telesales Solutions – Order Management, Supply Chain Solution
- ✓ Managing data analytics and Business Intelligence (BI)
- ✓ Quality Assurance and Testing – Manual and Automation
- ✓ Technical and Management consulting

BeMore has been collaborating very closely with transnational clients, such as Nestlé, since inception. A telesales solutions designed and developed by BeMore has been accepted as a Standard European Solution for all Nestlé sales centres. Presently this sales solution handles 3 billion CHF turnover per annum. Our management team has working experience of more than 15 years with Nestlé. BeMore is also a trusted partner to its clients for website implementation on a wide range of technologies, including successful implementations of e-Commerce websites (B2B & B2C) in Europe, the GCC region and India. We have also built up an impeccable track record in providing native Android & iOS mobility solutions, and on multi-OS mobile development platforms such as Xamarin. Our Swiss principals and adherence to Swiss quality ab initio, gives us our unique identity.

For more information about BeMore, visit [www.bemore.ch](http://www.bemore.ch)