

# webSEQUENT

### Overview

webSEQUENT has been designed “from a blank sheet of paper” as a flexible and powerful tool for unit, function, and regression testing activities for both software engineers and Quality Assurance specialists

### Key features

- Scene based architecture enables a complete separation between Web page and underlying object model
- Templates for creating and editing expressions matching Scenes and Web pages
- Record scripts by navigating through the Web application
- Export scripts in C# or VB .NET; optionally create Visual Studio projects
- Use XPath expressions to find controls on the Web page
- Extract tabular data from Web pages and convert repeating information into ADO .NET DataTable objects

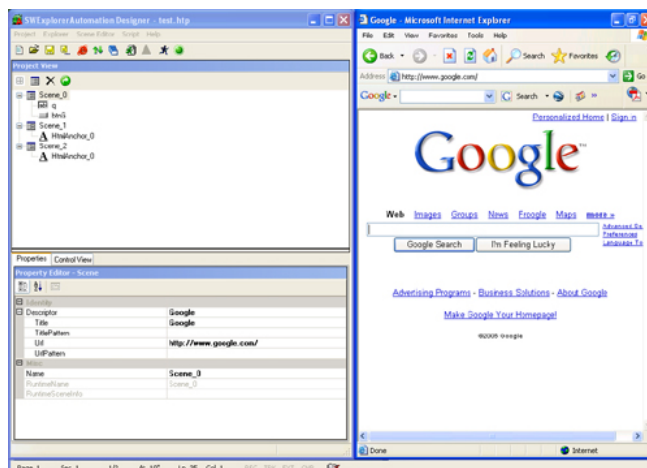
### Benefits

- Use the same familiar language (C# or VB .NET) for managing scripts
- Integrate test scripts in NUnit-based automated tests and automated build procedures
- Expedite regression testing by validating presence / absence of known Scenes

webSEQUENT transforms a Microsoft Internet Explorer instance into a visual editor, where test scripts can be recorded by simply navigating through the application

It is critical to integrate all unit, testing, and regression testing activities in the software development lifecycle of complex Web applications. At agileSEQUENT, we call this approach webFIT, or Web Framework for Integrated Testing.

With webSEQUENT, enabling web Framework for Integrated Testing (or webFIT) is not only possible but also easy. While navigating through the application, webSEQUENT test scripts are automatically captured and later exported as C# or VB .NET files. These files can be edited, compiled into executable files, and later included in NUnit tests. webSEQUENT delivers advanced and powerful automation capabilities to test complex Web applications.



**“We looked at many automated testing tools and selected webSEQUENT. It’s flexibility and power have no equals”**

CTO, leading provider of custom .NET applications for the financial industry

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### **Next generation architecture**

webSEQUENT has been designed to externally monitor Microsoft Explorer Domain Object Model (DOM) structure and changes. This architecture enables webSEQUENT to support automated testing of any Web application, including even sophisticated Ajax-based Web applications. webSEQUENT is completely Ajax neutral because it focuses on the elements reflected in Microsoft Explorer DOM.

webSEQUENT architecture consists of two components: webSEQUENT Designer and webSEQUENT Runtime.

webSEQUENT Designer is a visual editor for creating or capturing test scripts, containing Scenes and Controls (HTML elements and specified data / text). One Scene can match many Web pages by using title and URL regular expression patterns. webSEQUENT Runtime uses Scene and Control descriptors to match Scenes to Web pages by using regular expressions in the Scene and Control descriptors. The Scene will be activated only if all required Controls in Scene are present and activated also.

webSEQUENT Runtime provides an object and programming model for client applications (for example NUnit tests) which reference webSEQUENT objects.

### **Integration with NUnit**

webSEQUENT test scripts can be exported as C# or VB .NET code and optionally Visual Studio projects. These files can be modified to create sophisticated testing routines fully integrated in NUnit tests and automated build procedures.

### **Improve regression testing**

webSEQUENT Scene based architecture greatly simplifies and reduces the amount of time required for regression testing of Web applications. When a particular Scene cannot be detected, webSEQUENT will generate an exception. By first navigating to all the Scenes on the specified Web site and programmatically

monitoring ‘Scene not detected’ exceptions, the regression tests can be now performed much quicker than, for example, performing asserts in NUnit to validate individual elements on the Web page.

This unique approach – enabled by webSEQUENT’s advanced next generation architecture – first validates if there are substantial changes to Web page structures before performing additional, more detailed and time consuming tests.

### **Perform load testing**

Several scripts reflecting real user scenarios can be recorded using webSEQUENT. Then, multiple webSEQUENT sessions can be just easily configured to simulate desired workload (number of concurrent users and transaction arrival). With webSEQUENT, no additional investment is required to perform real life load testing.

### **Integrate Web applications**

Exchanging data between multiple Web applications can be a complex and often an expensive challenge. There are instances when building an interface between Web applications, especially when such an interface is a temporary–yet critical requirement, may not be a good investment. Instead, webSEQUENT can be used to record data capture (“scraping”) scripts from multiple applications and easily update another, target application. With webSEQUENT, exchanging data between multiple Web applications becomes simple, potentially solving a complex business problem while avoiding substantial costs.

### **Our services: your partner**

agileSEQUENT professional services team can help you implement webSEQUENT in your organization and make sustainable and measurable improvements in software development and testing activities.

Please contact us for more information.