

Beyond Watir

Scripting Web Tests

A One-Day Tutorial

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Other COM/DOM Drivers



- ◆ Samie – Perl
 - <http://samie.sourceforge.net>
- ◆ Win32-IE-Mechanize – Perl
 - <http://search.cpan.org/dist/Win32-IE-Mechanize/>
- ◆ Jiffie – Java
 - <http://jiffie.sourceforge.net>
- ◆ Pamie – Python
 - <http://pamie.sourceforge.net>
- ◆ IEUnit – JavaScript
 - <http://ieunit.sourceforge.net>
- ◆ IETest – C#
 - <http://ietest.sourceforge.net>

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Protocol Drivers

Simulate a Web Browser



- ◆ HttpUnit – Java
 - <http://httpunit.sf.net>
- ◆ jWebUnit – Java
 - <http://jwebunit.sf.net>
- ◆ HTMLUnit – Java
 - <http://htmlunit.sf.net>
- ◆ WWW-Mechanize – Perl
 - <http://search.cpan.org/dist/WWW-Mechanize/>

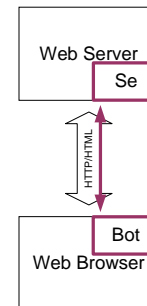
All open-source and commercial load/performance testing tools are protocol drivers
Technology is limited for functional testing because of **inability to test JavaScript** and browser compatibility

Tests execute directly against the server

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Selenium

Driver Browser using implanted Bot



- ◆ Selenium installed on Server
- ◆ Works with most platforms and browsers
- ◆ Supports tests in
 - HTML
 - Java
 - .Net
 - Ruby
 - Python
- ◆ <http://selenium.thoughtworks.com>

Tests execute in browser

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Commercial Web Tools



- ◆ Some use COM/DOM drivers
- ◆ Most modify browser DLL's to include testability hooks
- ◆ Also send GUI events to the browser

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Windows GUI Testing



Win32 GUIs

- ◆ Win32-GuiTest – Perl
 - <http://triumvir.org/prog/perl/guitest/>
- ◆ Autolt
 - Library delivered as ActiveX (COM/OLE) component, thus can be used from most languages
 - <http://www.autoitscript.com/>

.Net GUI Testing

- ◆ *Effective GUI Test Automation*, Li & Wu
 - How to build your own tool
- ◆ “Build Quick and Easy UI Test Automation Suites with Visual Studio .NET,” James McCaffrey
 - <http://msdn.microsoft.com/msdnmag/issues/03/01/UITestAutomation/default.aspx>
- ◆ “Automating Tests for .NET Applications in C#,” Elisabeth Hendrickson
 - <http://qualitytree.com/autotest/doitnetgui.htm>

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Java GUI Testing



- ◆ Abbot
 - <http://abbot.sourceforge.net/>
 - Testing Java with Java
- ◆ Marathon
 - <http://marathonman.sourceforge.net/>
 - Testing Java with Python

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Command Line Testing



- ◆ **Expect**, Don Libes
 - Automates Unix terminals
 - Uses Tcl or [incr Tcl]
 - Long-established.
 - *Exploring Expect*, Don Libes
 - <http://expect.nist.gov/>
 - <http://wiki.tcl.tk/expect>
 - <http://www.csc.calpoly.edu/~dbutler/tutorials/winter96/expect/>
- ◆ **Pexpect**,
 - Expect for Python
 - <http://pexpect.sourceforge.net/>
- ◆ **Expect.pm**
 - Expect for Perl
 - <http://sourceforge.net/projects/expectperl/>

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Homebrew Test Automation

- ◆ A full-day seminar on how to build your own testing frameworks
- ◆ Covers most types of applications
- ◆ Full seminar notes online
 - http://www.io.com/~wazmo/papers/homebrew_test_automation_200409.pdf