

WATIR

Automated Web testing using WATIR

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Automated Web Testing



Agile Gibbon

Hylobates agilis

- ◆ You would never write server side code without automated tests
- ◆ So why write front end code without them?



Why Watir

- ◆ It's a free Open Source tool
- ◆ A very active and growing community
- ◆ Uses Ruby, a full-featured object-oriented scripting language, rather than a proprietary vendorscript.
- ◆ Powerful and easy to use.
- ◆ Delighted users ...

Watir Testimonials

- ◆ "Watir Rocks! Truly awesome!!" — Shashank Date
- ◆ "Watir is the most compelling alternative [to Fit] for filling the automated acceptance testing need." — Ward Cunningham
- ◆ "I've been trying to find the Holy Grail of Automated Web UI Testing....And the one I'm currently enamored with is Watir. — Scott Hanselman
- ◆ "I wanted to run around my office dancing and celebrating." — Beth Ferguson
- ◆ <http://wtr.rubyforge.org/wiki/wiki.pl?WatirTestimonials>



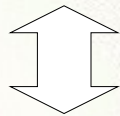
Creation and History

- ◆ 2002 – Wasserman creates Samie
 - ◆ A Perl COM/DOM driver
 - ◆ Refused a WinRunner license
- ◆ early 2003 – Morris creates IEC
 - ◆ A Ruby COM/DOM Driver
 - ◆ Inspired by Samie
- ◆ May 2003 – Marick & Pettichord
 - ◆ First teach Scripting for Testers, using Ruby
 - ◆ IEC is very popular with students
 - ◆ Continue to teach this class publicly, adapting IEC to student reactions
- ◆ Oct 2003 – Web Testing with Ruby project founded
 - ◆ Includes both IEC and the Scripting class materials
 - ◆ Rogers contributes another Ruby COM/DOM driver
- ◆ Aug 2004 – Watir launched by Pettichord & Rogers
 - ◆ A new Ruby COM/DOM Driver based on Test-Driven Development
- ◆ Jan 2005 – Watir 1.0 released

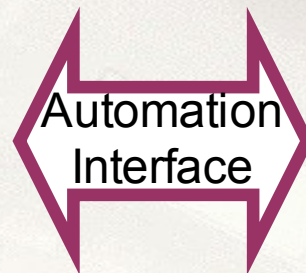


How Watir Works

Web Server



Internet Explorer



Watir & Ruby

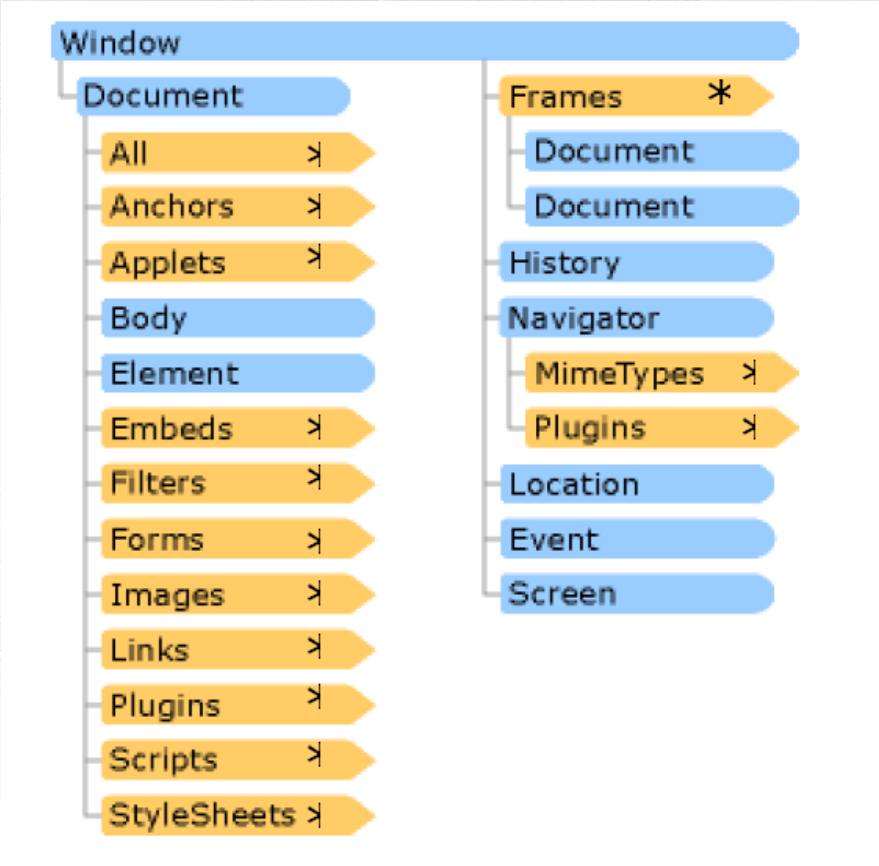
- ◆ Browser Automation
- ◆ Test drive the browser
- ◆ Use IE OLE/COM interface

Document Object Model (DOM)

- ◆ DOM is ...
 - ◆ A standard model for elements of a web page
 - ◆ Used by client-side JavaScript
 - ◆ Supported by IE, Mozilla, FireFox and other browsers
 - ◆ IE also provides access to the DOM via OLE/COM
- ◆ Use WATIR to access page elements via the DOM



DOM



Watir Basics

```
require 'watir'  
ie = Watir::IE.start('http://localhost:8080')  
ie.title  
ie.text_field(:name, 'name').set('value')  
ie.button(:value, 'value').click  
ie.contains_text('text')  
assert_equal(expected, test_method)  
assert_match(regex, test_method)  
assert(expression)
```

Show me the Code!

Demo WATIR



- ◆ Only works on Windows/IE
- ◆ Careful working with modal windows

Alternatives – 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>



Alternatives – 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



Alternatives – Selenium

- ◆ Tests run in the browser using bot
- ◆ Requires installation on Server
- ◆ Supports multiple browsers/OS
- ◆ Selenium workshop by Paul Hammant tomorrow at 2



Questions?



- ◆ Main Watir Site
 - ◆ <http://wtr.sourceforge.net>
- ◆ User Guide
 - ◆ http://wtr.rubyforge.org/watir_user_guide.html
- ◆ Mailing List
 - ◆ <http://rubyforge.org/mailman/listinfo/wtr-general>
- ◆ Ruby
 - ◆ <http://www.ruby-lang.org/en/>
 - ◆ <http://www.rubycentral.com/book/index.html>
 - ◆ <http://www.pragmaticprogrammer.com/titles/ruby/index.html>
- ◆ This Presentation
 - ◆ <http://www.sengupta.net/talks/>

*Acknowledgement: Some material courtesy Brett Pettichord
(<http://wtr.rubyforge.org/s101/doc/>)*

Dependencies & Installation

◆ Install Ruby

- ◆ On windows, use the One Click Installer
- ◆ http://rubyforge.org/frs/?group_id=167
- ◆

◆ Install Watir

- ◆ `gem install watir`
- OR*

- ◆ http://rubyforge.org/frs/?group_id=104

◆ Enjoy!

