

Selenium and Perl  
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What is Selenium?

- Written in Java

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- Similar to Test::WWW::Mechanize

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- But tests at the browser level

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- But tests at the browser level
- Exercises your JavaScript

What is Selenium?

## What is Selenium?

- Written in Java
- Similar to Test::WWW::Mechanize
- But tests at the browser level
- Exercises your JavaScript
- Tests your site in any browser

Selenium IDE

- Firefox plugin



## Selenium IDE

- Firefox plugin
- Designer can create tests

## Selenium IDE

- Firefox plugin
- Designer can create tests
- Records your actions in the browser

Selenium IDE

## Selenium IDE

- Firefox plugin
- Designer can create tests
- Records your actions in the browser
- Replays them

Demo

## Problems

- Unreliable tests

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- It's not Perl (it's Selenese)

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- Repetition: can't easily use libraries



## Problems

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- Lack of automation

## Unreliable tests

problem: `waitForPageToLoad`  
does not handle ajax requests

Unreliable tests

## Unreliable tests

problem: `waitForPageToLoad`  
does not handle ajax requests

solution: `waitForTextPresent`

## Problems

- x Unreliable tests
  - It's not Perl (it's Selenese)
  - Repetition: can't easily use libraries
  - Lack of automation

Test::WWW::Selenium

4 ingredients

1. Perl test



4 ingredients

1. Perl test
2. Selenium server

4 ingredients

1. Perl test
2. Selenium server
3. Web browser

4 ingredients

4 ingredients

1. Perl test
2. Selenium server
3. Web browser
4. Website

```
use Test::Most;
use Test::WWW::Selenium;

my $s = Test::WWW::Selenium->new(
    host      => "localhost",
    port      => 4444,
    browser   => "*firefox",
    browser_url => "http://localhost:5000",
);

$s->open_ok("/index.tt");
$s->wait_for_page_to_load_ok;
$s->type_ok(searchInput => "cat pictures");
$s->click_ok("searchButton");
$s->wait_for_page_to_load_ok;
$s->is_text_present_ok('2 bajillion results');

done_testing;
```

```
use Test::Most;
use Test::WWW::Selenium;

my $s = Test::WWW::Selenium->new(
    host      => "localhost",
    port      => 4444,
    browser   => "*firefox",
    browser_url => "http://localhost:5000",
);

$s->open_ok("/index.tt");
sleep 2;
$s->wait_for_page_to_load_ok;
sleep 2;
$s->type_ok(searchInput => "cat pictures");
sleep 2;
$s->click_ok("searchButton");
sleep 2;
$s->wait_for_page_to_load_ok;
sleep 2;
$s->is_text_present_ok('2 bajillion results');

done_testing;
```

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$s->click_ok("searchButton");
$s->wait_for_page_to_load_ok;
$s->is_text_present_ok('2 bajillion results');

done_testing;
```

```
use Test::Most;
use MySelenium

my $s = MySelenium->new;

$s->open_ok("/index.tt");
$s->wait_for_page_to_load_ok;
$s->type_ok(searchInput => "cat pictures");
$s->click_ok("searchButton");
$s->wait_for_page_to_load_ok;
$s->is_text_present_ok('2 bajillion results');

done_testing;
```

```
package MySelenium;  
use Moose;  
extend 'Test::WWW::Selenium';
```

Unfortunately

Unfortunately

Can't extend non Moose libraries  
with Moose

Fortunately

Fortunately

MooseX::NonMoose can extend  
non Moose libraries

```
package MySelenium;  
use Moose;  
use MooseX::NonMoose;  
extend 'Test::WWW::Selenium';
```



Unfortunately

Unfortunately

MooseX::NonMoose does not work on  
parents that use AUTOLOAD

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  - Can't easily extend Test::WWW::Selenium
  - Lack of automation

Fortunately

Fortunately

Test::WWW::Selenium::More

```
package MySelenium;
use Moose;
extends 'Test::WWW::Selenium::More';

has host      => (...);
has port      => (...);
has browser   => (...);
has browser_url => (
    is      => 'rw',
    isa     => 'Str',
    default => 'http://localhost:5000'
);

no Moose;
```

```
use Test::Most;
use MySelenium;

my $s = MySelenium->new;

$s->note('Are there enough cat pictures?');
$s->open_ok("/index.tt");
$s->type_ok(searchInput => "cat pictures");
$s->click_ok("searchButton");
$s->wait_for_page_to_load_ok;
$s->is_text_present_ok('2 bajillion results');

done_testing;
```



```
use Test::Most;
use MySelenium;

my $s = MySelenium->new;

$s->note('Are there enough cat pictures?');
$s->open_ok("/index.tt");
$s->type_ok(searchInput => "cat pictures");
$s->click_ok("searchButton");
$s->wait_for_page_to_load_ok;
$s->is_text_present_ok('2 bajillion results');

$s->note('Check results as a logged in user');
$s->login_ok('bob'); # not in the Selenium API
$s->is_text_present_ok('2 bajillion results');

done_testing;
```

```
package MySelenium;
use Moose;
extends 'Test::WWW::Selenium::More';

has host          => (...);
has port          => (...);
has browser       => (...);
has browser_url => (
    is      => 'rw',
    isa     => 'Str',
    default => 'http://localhost:5000'
);

sub login_ok {
    my ($self, $username, $password) = @_;
    $self->open_ok('/login.tt');
    $self->type_ok(username => $username);
    $self->type_ok(password => $password);
    $self->click_ok('login');
}

no Moose;
```

```
package MySelenium;
use Moose;
extends 'Test::WWW::Selenium::More';
with 'MySelenium::Roles::Authentication';

has host          => (...);
has port          => (...);
has browser       => (...);
has browser_url => (
    is      => 'rw',
    isa     => 'Str',
    default => 'http://localhost:5000'
);

no Moose;
```

```
package MySelenium;
use Moose;
extends 'Test::WWW::Selenium::More';
with 'MySelenium::Roles::Authentication';
with 'MySelenium::Roles::Payments';
# etc

has host          => (...);
has port          => (...);
has browser       => (...);
has browser_url => (
    is      => 'rw',
    isa     => 'Str',
    default => 'http://localhost:5000'
);

no Moose;
```

## Problems

- x Unreliable tests
- x It's not Perl (it's Selenese)
- x Repetition: can't easily use libraries
- x Can't easily extend Test::WWW::Selenium
  - Designers can't easily write tests
  - Lack of automation

Test::WWW::Selenium::More

Test::WWW::Selenium::More

- Method chaining

```
use Test::Most;
use MySelenium;

MySelenium->new

    ->note('Are there enough cat pictures?')
    ->open_ok("/index.tt")
    ->type_ok(searchInput => "cat pictures")
    ->click_ok("searchButton")
    ->wait_for_page_to_load_ok
    ->is_text_present_ok('2 bajillion results')

    ->note('Check results as a logged in user')
    ->login_ok('bob') # not in the Selenium API
    ->is_text_present_ok('2 bajillion results');

done_testing;
```



## Problems

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Jenkins

- Written in Java

## Jenkins

- Written in Java
- cron with a web interface and features

Jenkins

## Jenkins

- Written in Java
- cron with a web interface and features
- The moose dev team uses it

## Problems

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- ~ Designers can't easily write tests
- x Lack of automation

The End

## Links

Test::WWW::Selenium::More

<http://github.com/kablamo/Test-WWW-Selenium-More>

Selenium reference (locators + api)

[http://cavaliere.org/sandbox/selenium\\_api\\_reference](http://cavaliere.org/sandbox/selenium_api_reference)

This talk

<http://kablamo.github.com/talk-SeleniumAndPerl>

kablamo

<http://kablamo.org>



Bonus slide

<https://saucelabs.com/>

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