Selenium in OpenQA

testing web pages and more

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OpenQA system

- Release management tool
  .. with included acceptance/integration testing
OpenQA tests

• UX focus
• Multi-Machine - parallel, serial, results reuse
• Advanced networking – open vSwitch support
• Multiple architecture support
• Scalable – remote workers, asset caching
• Infrastructure integration – RabbitMQ, fedmsg, GRU
testing web - OpenQA

x11_start_program('firefox');
assert_screen('firefox_started');
assert_and_click('url_bar');
type_string("www.opensuse.org\n");
assert_screen('opensuse.org-looks-fine');
assert_and_click('link_to_portal');
...

$driver->find_element('#user-action a')->click();
$driver->find_element_by_link_text('Audit log')->click();
wait_for_data_table;
like($driver->get_title(), qr/Audit log/, 'on audit log');
my $table = $driver->find_element_by_id('audit_log_table');
ok($table, 'audit table found');

my $search = $driver->find_element('input.form-control');
ok($search, 'search box found');

my @entries = $driver->find_child_elements($table, 'tbody/tr', 'xpath');
is(scalar @entries, 3, 'three elements without filter');
OpenQA tests architecture

- ~/main.pm
- ~/tests/
- ~/needles/
- ~/lib/
- ~/data/
- ~/products/
OpenQA tests architecture

- ~/main.pm ➔ test loader
- ~/tests/ ➔ test directory
- ~/needles/ ➔ matching templates
- ~/lib/ ➔ support libraries
- ~/data/ ➔ static test data
- ~/products/ ➔ product specific data
lib/

- Automatically added to @INC
- Base test modules and libraries
- No ABI specified for libraries
selenium.pm

• Install phase
  - selenium-server on SUT
  - chrome and chromedriver

• Run phase
  - obtain IP of SUT
  - start server and connect driver (Selenium::Remote::Driver)

• Helper subroutines
  - wait_for_xpath, wait_for_link, ...
Better of both worlds

my $driver = selenium_driver();
$self->register_barriers('suma_minion_ready');

wait_for_link("Pending Minions", -tries => 10, -wait => 15, -reload_after_tries => 1)->click();
wait_for_xpath("//button[@title='accept']")-&gt;click();

wait_for_link(".openqa.suse.de", -tries => 10, -wait => 15, -reload_after_tries => 1)->click();

save_screenshot;

$self-&gt;apply_highstate();

$self-&gt;registered_barrier_wait('suma_minion_ready');
Future

• new helpers
• openSUSE distri split into individual libraries
• support for WinAppDriver as an exercise
Questions?
Have a Lot of Fun, and Join Us At:
www.opensuse.org