

# Windmill

Write and maintain UI tests for your web applications

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Demo!



# Requirements

- Run single test on all target browsers
- Easily debug tests
- Easily fit in to continuous integration

# History

- SilkTest, Winrunner, dogtail
- Selenium
  - javascript is the platform
  - overcome the “same domain” security policy through a smart proxy



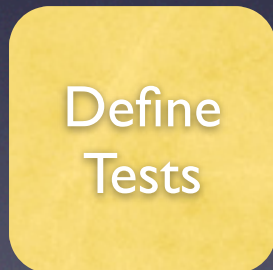
# Why windmill?

We need to test a heavy ajax application that changes dramatically between releases.

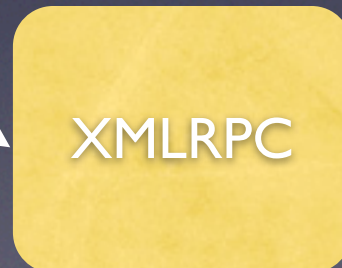
- Existing solutions didn't fulfill all of our requirements
- Debugging and test authoring was very difficult
- Continuous integration was a pain
- Adding additional support was a pain

# Mile High Overview

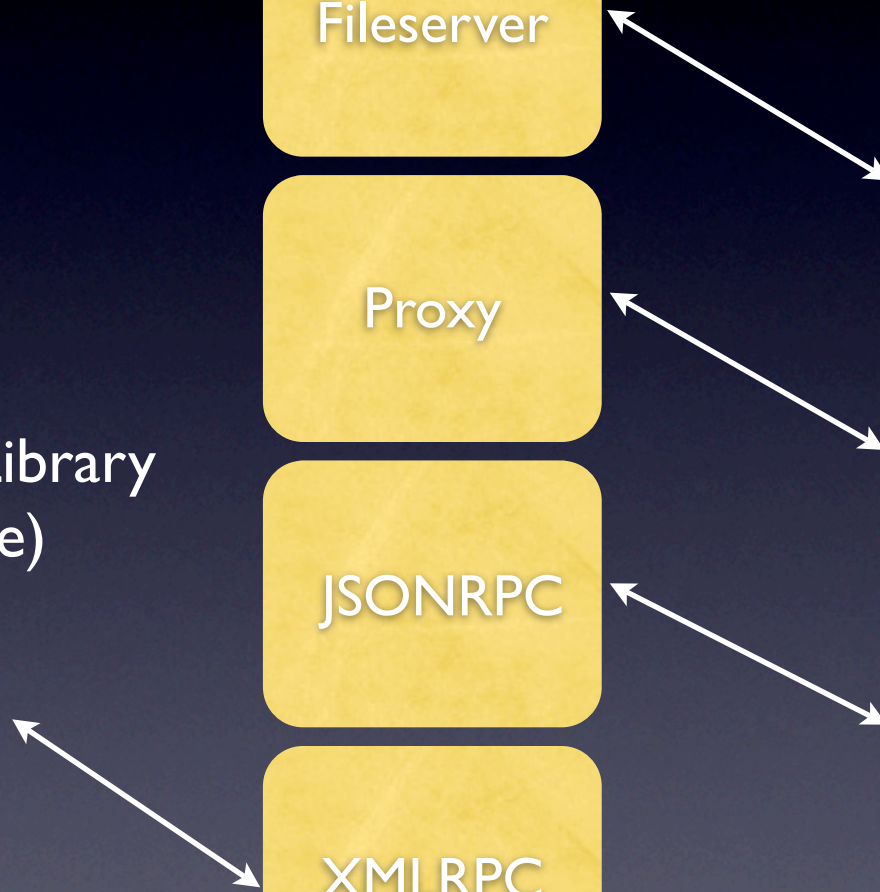
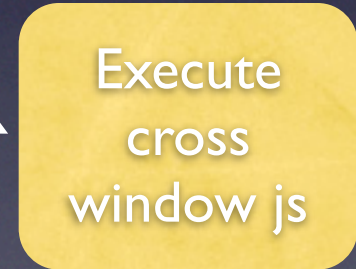
Test Authoring Library  
(any language)



Service  
(python)



IDE  
(javascript)





# XMLRPC Workflow

Authoring  
Lib

Service

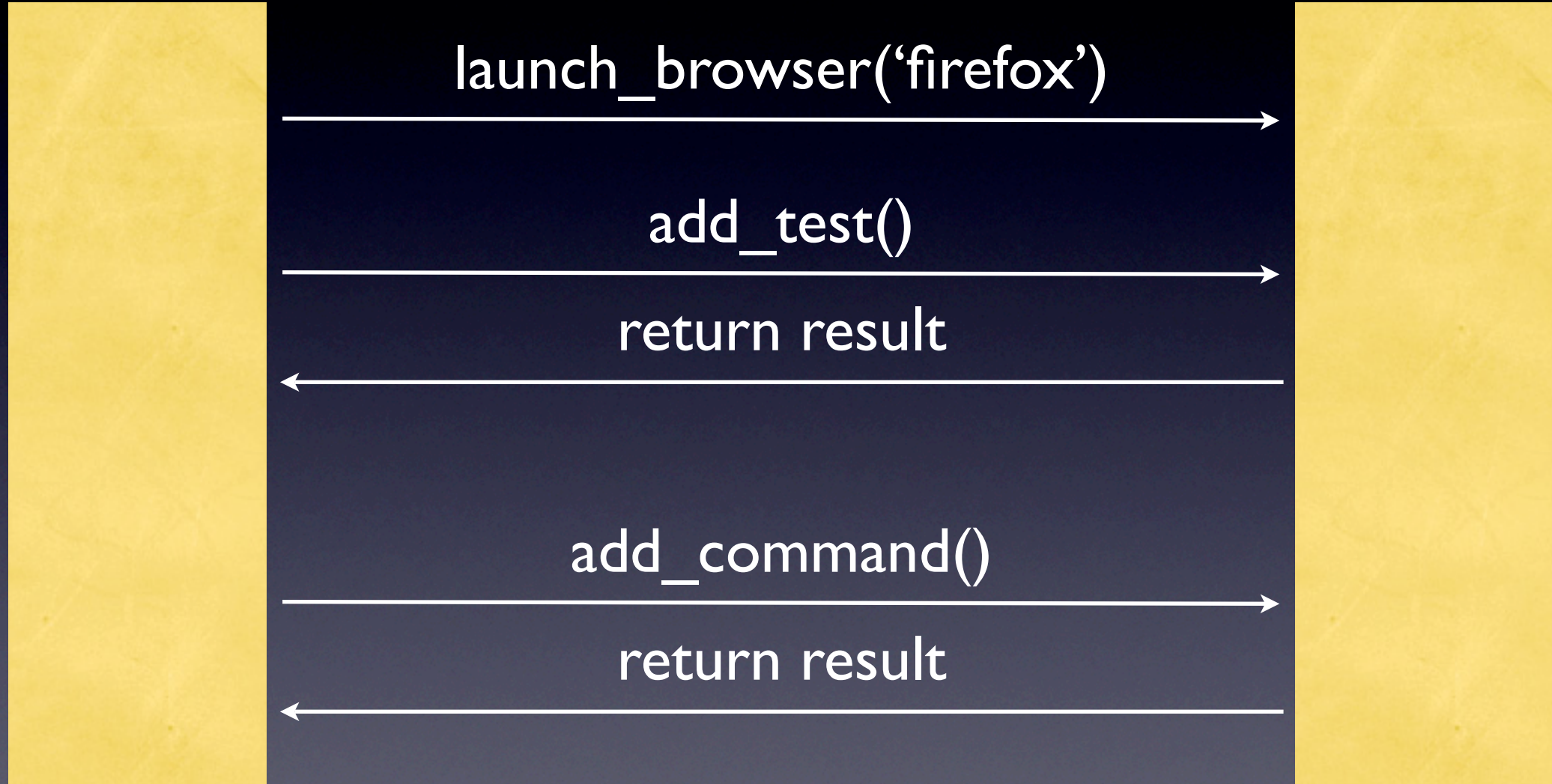
launch\_browser('firefox')

add\_test()

return result

add\_command()

return result



# JSONRPC Workflow

Service

IDE

next\_action()

return test

report result

next\_action()

return command

report serialized json object



# Supporting continuous integration

## Service

Browser Launching and configuration

Test Input

Results Tracking and output

Dynamic debugging information requests

Dynamic commands

## IDE

Build UI and start running tests

Test running, performance, debugging

Stop on Failure and interactive debugging

Arbitrary remote javascript execution

Command execution

# Now the fun stuff

What can I automate?

- Everything!

OOTB support for; open, click, check, radio, wait, type, doubleClick, select, dragDrop

All controller actions support a unified “locator” to reference UI elements. Supports; xpath, link, name, id, and jsid

How can I extend the controller/commands api?

- Extensions are simple to write in javascript
- Extension functions are first class citizens



# IDE Features

- Multi-browser test recorder
- Multiple layers of support for performance information and metrics
- DOM explorer
- Javascript shell. (thank you mochikit)

# Service Features

- Extensible logging system (stdlib logging module)
- 3 run modes.
  - “headless” command line. stdout.
  - “shell” mode. ipython or stdlib python shell.
  - wx GUI. PyCrust shell, full view of logging all logging with level selector.
- Browser launching and configuration.
- Server level pre and post hooks for test results parsing, validation, etc.



<http://windmill.osafoundation.org>

Demo!



# The Future

- More supported languages
- Improve packaging
- Improve UI (Service and IDE)
- Better record saving support
- What do you need?

Q & A