

Redmine - Patch #41094

Migrate System Tests from Selenium to Playwright

2024-08-06 03:06 - Mizuki ISHIKAWA

Status:	New	Start date:	
Priority:	Normal	Due date:	
Assignee:	Marius BĂLTEANU	% Done:	0%
Category:	Code cleanup/refactoring	Estimated time:	0.00 hour
Target version:	Candidate for next major release		
<p>Description</p> <p>Currently, Redmine executes system tests using Selenium. I suggestion to switch to Playwright for running these tests.</p> <p>Playwright can be used as a driver starting from Rails 7.1. https://github.com/rails/rails/pull/48950</p> <p>Before running the tests, several commands need to be executed:</p> <ul style="list-style-type: none">• yarn install• npx playwright install• npx playwright install-deps <p>Benefits of using Playwright:</p> <ul style="list-style-type: none">• Simpler setup process• Capybara syntax available (https://github.com/Yusukelwaki/capybara-playwright-driver) <p>Drawbacks of using Playwright:</p> <ul style="list-style-type: none">• Migration from the existing Selenium environment is required (not needed if using the playwright_or_selenium.patch)• Commands to set up Playwright need to be executed before running the tests <p>I have attached two patches: playwright.patch and playwright_or_selenium.patch. The playwright.patch replaces Selenium with Playwright, while the playwright_or_selenium.patch switches the driver based on the ENV['USE_PLAYWRIGHT']. Please let us know your thoughts on which option is preferable.</p>			

History

#1 - 2024-08-06 03:07 - Mizuki ISHIKAWA

- File playwright_or_selenium_v2.patch added

#2 - 2024-08-06 03:17 - Mizuki ISHIKAWA

tests run with Playwright:

```
$ USE_PLAYWRIGHT=true rake test TEST=test/system/
To run the system test using Playwright, the following commands are required in advance.
`yarn install`
`npx playwright install`
`npx playwright install-deps`

Run options: --seed 56757

# Running:

Capybara starting Puma...
* Version 6.4.2, codename: The Eagle of Durango
* Min threads: 0, max threads: 4
* Listening on http://127.0.0.1:41937
.....[Screenshot Image]: /var/lib/redmine/tmp/downloads/failures_test_inline_autocomplete_for_issues_with_double_hash_keep_syntax.png
E

Error:
InlineAutocompleteSystemTest#test_inline_autocomplete_for_issues_with_double_hash_keep_syntax:
```

```
Capybara::ElementNotFound: Unable to find visible css ".tribute-container"
  test/system/inline_autocomplete_test.rb:54:in `test_inline_autocomplete_for_issues_with_double_hash_keep_syntax'

bin/rails test test/system/inline_autocomplete_test.rb:47

.....[WARNING] Execution context was destroyed, most likely because of a navigation
Call log:

...[WARNING] Execution context was destroyed, most likely because of a navigation
Call log:

.....

Finished in 100.760690s, 0.6153 runs/s, 3.7812 assertions/s.
62 runs, 381 assertions, 0 failures, 1 errors, 0 skips

InlineAutocompleteSystemTest#test_inline_autocomplete_for_issues_with_double_hash_keep_syntax test seems to fail in selenium too.
```

#3 - 2024-08-06 05:09 - Ko Nagase

+1 for playwright_or_selenium option, because some plugins may still need selenium setup in redmine core side.
I confirmed that playwright_or_selenium_v2.patch doesn't affect selenium test results.

In addition of the above error which seems to be same as [#40683](#),
I confirmed the following failure on both playwright and selenium tests,
but I guess that it comes from my test environment (macOS arm64, ruby3.2, PostgreSQL14).

```
Failure:
IssuesSystemTest#test_create_issue_with_watchers [test/system/issues_test.rb:137]:
--- expected
+++ actual
@@ -1, +1 @@
-["Dave Lopper", "Some Watcher"]
+["Dave Lopper", "John Smith", "Some Watcher"]
```

#4 - 2024-10-24 08:26 - Mizuki ISHIKAWA

- File playwright_or_selenium_v3.patch added

I have updated the patch to work with the latest Redmine.
I would be glad to get this patch committed, as it is hard to create a system testing environment using selenium in my development environment (Mac M1, using Docker).

#5 - 2024-11-10 08:43 - Go MAEDA

- Target version set to Candidate for next major release

#6 - 2024-11-10 22:30 - Marius BĂLTEANU

Have you made this work inside a Docker container?

#7 - 2024-11-15 08:55 - Mizuki ISHIKAWA

Marius BĂLTEANU wrote in [#note-6](#):

Have you made this work inside a Docker container?

Yes, Playwright tests can be run inside a Docker container. For example, if you want to integrate it into GitHub Actions, it can be set up like this:
<https://github.com/ishikawa999/redmine/actions/runs/11852263582/workflow#L103-L116> ,
<https://github.com/ishikawa999/redmine/actions/runs/11852263582/job/33030121847>.

#8 - 2024-11-15 08:59 - Marius BĂLTEANU

- Assignee set to Marius BĂLTEANU

Files			
playwright_or_selenium.patch	72.2 KB	2024-08-06	Mizuki ISHIKAWA
playwright.patch	70.9 KB	2024-08-06	Mizuki ISHIKAWA
playwright_or_selenium_v2.patch	72.2 KB	2024-08-06	Mizuki ISHIKAWA

