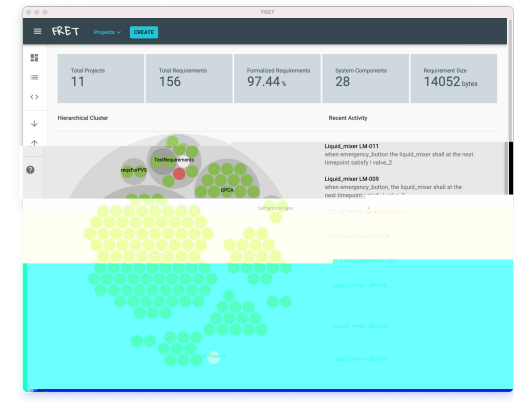






- We can now use automated regression tests but more work is needed  
*Testing Scenarios*

## *Testing Scenarios*





- Bugs cost less if they are caught and fixed early on.
- Most of our work up to now are for e2e tests. Today tutorial will be on writing e2e tests.
- Our focus should be more on e2e testing since FRET is a research rather than a commercial software.
- I am exploring and starting to add Jest Snapshot tests to do Integration and Unit testing.

#### THE FOUR TYPES OF TESTS

### End to End

A helper robot that behaves like a user to click around the app and verify that it functions correctly.

Sometimes called "functional testing" or e2e.

### Integration

Verify that several units work together in harmony.

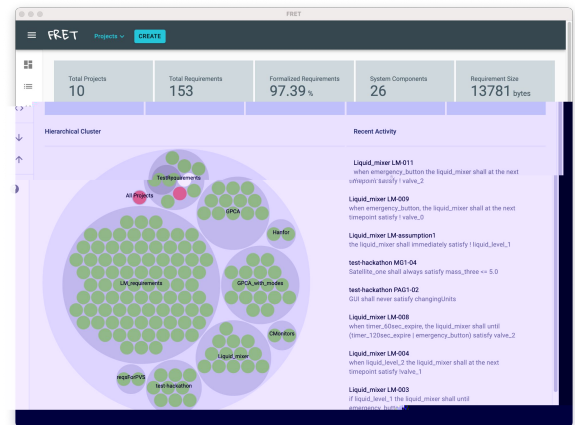
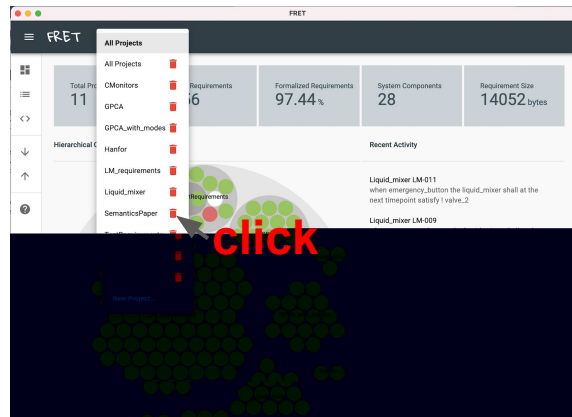
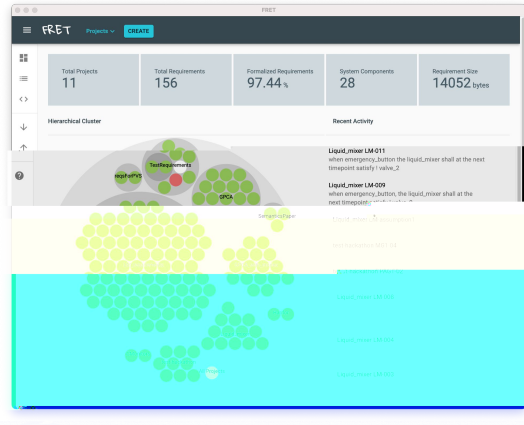
### Unit

Verify that individual, isolated parts work as expected.

### Static

Catch typos and type errors as you write the code.







≡

FRET

Projects ▾

CREATE

☐

☐

☐

<>

Total Projects

10

Total Requirements

153

Requirement ID

Parent Requirement ID

Project  
All Projects ▾

Rationale and Comments ▾

Requirement Description

A requirement follows the sentence structure displayed below, where fields are optional unless indicated with "\*\*". For information on a field format, click on its corresponding bubble.

SCOPE

CONDITIONS

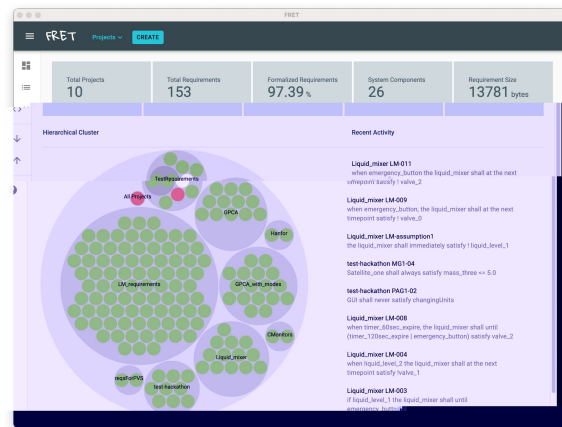
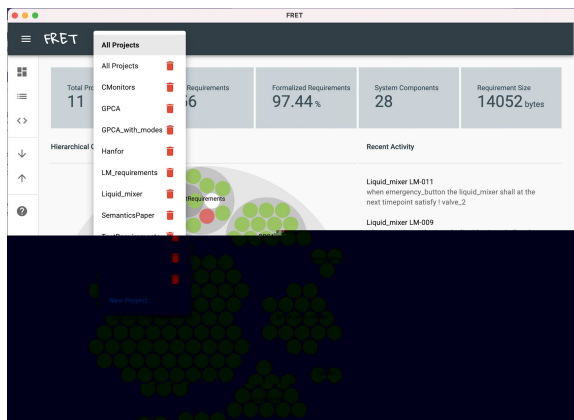
COMPONENT\*\*

QUALITY

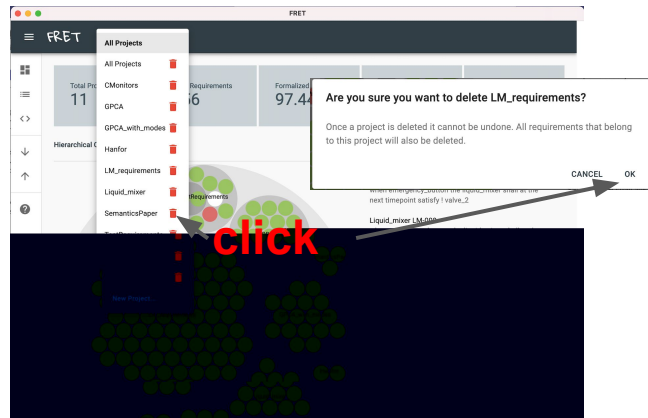
TIMING

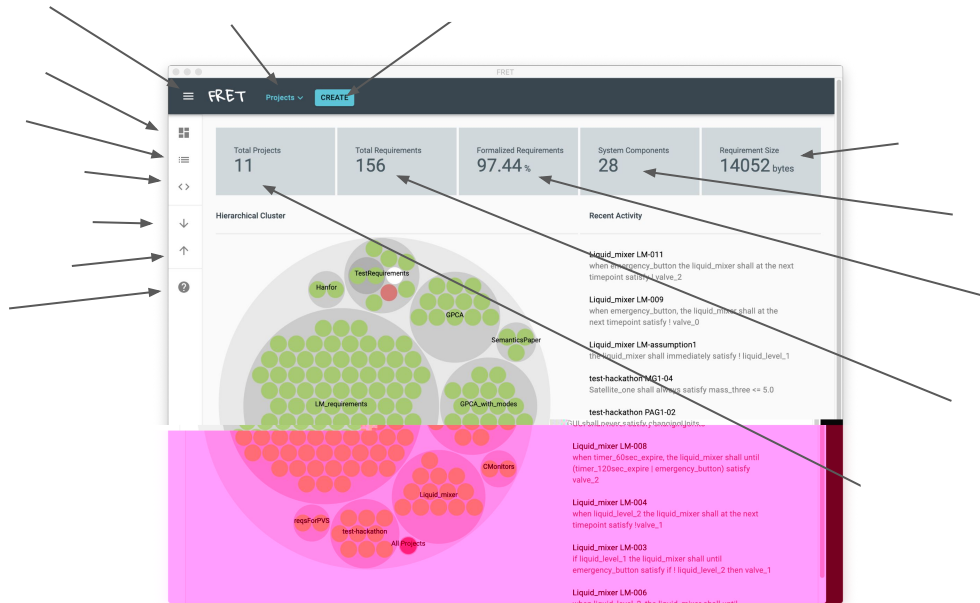
RESPONSE\*\*

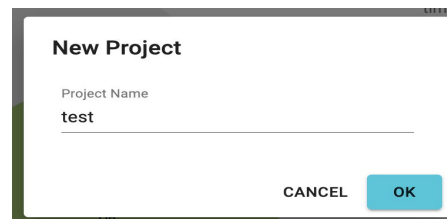
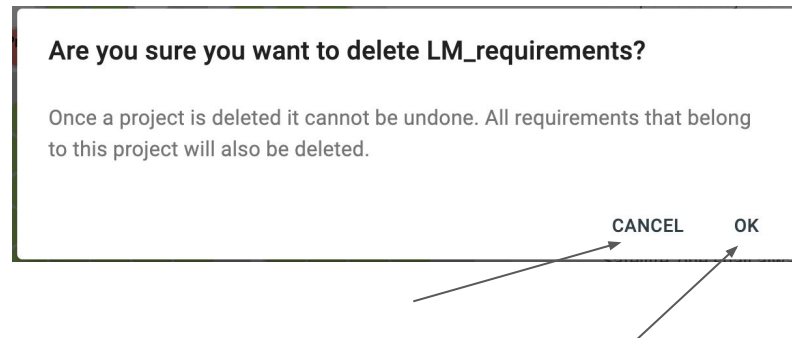
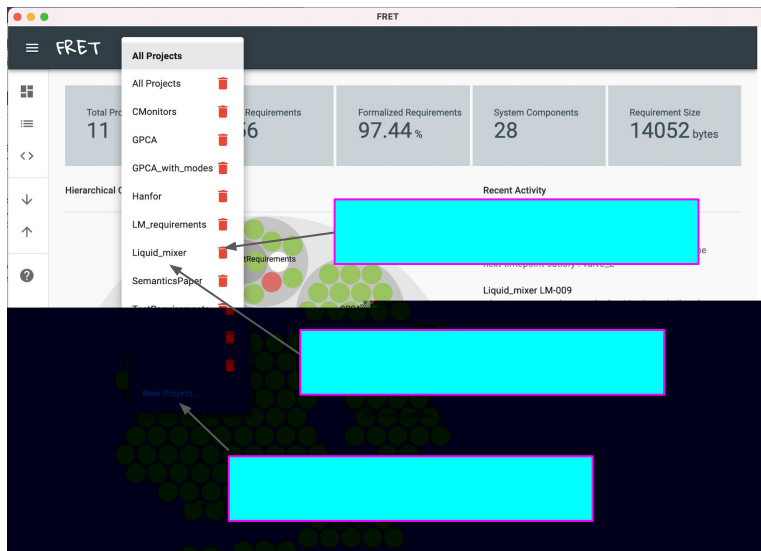
?











Create Requirement

Requirement ID

Parent Requirement ID

Project  
Demo-FSM

Rationale and Comments

Rationale

Comments

Requirement Description

A requirement follows the sentence structure displayed below, where fields are optional unless indicated with "\*". For information on a field format, click on its corresponding bubble.

SCOPE

CONDITIONS

COMPONENT\*

SHALL\*

TIMING

RESPONSES\*

?

SEMANTICS

CANCEL

CREATE





```
it.only('RCE - 1', async () => {  
  console.log('starting test: RCE - 1');  
  await startWithJsonFileImport('FSM-Demo.json');  
  // verify that the number of requirements is 13 after the import  
  const requirementField = await app.client.$('#qa_db_ili_requirements');  
  await app.client.pause(1000);  
  var reqText = await requirementField.getText();  
  expect(reqText).toContain('Total Requirements');  
  expect(reqText).toContain('13');  
  // click on the create button to add a requirement  
  const crtBtn = await app.client.$('#qa_db_btn_create');  
  await crtBtn.click();  
  // add a new requirement with the id 'a_new_req': 'if x> 0 component shall satisfy p'  
  const reqId = await app.client.$('#qa crt_tf_reqid');  
  await reqId.setValue('a_new_req');  
  const slateEditable = await app.client.$('#qa crt_edt_slateEditor');  
  await slateEditable.click();  
  await app.client.pause(1000);  
  await slateEditable.keys('if x> 0 component shall satisfy p');  
  const semanticsBtn = await app.client.$('#qa crt_btn_semantics');  
  await semanticsBtn.click();  
  const createRq = await app.client.$('#qa crt_btn_create');  
  await createRq.click();  
  //await app.client.pause(1000);  
  //  
  reqText = await requirementField.getText();  
  expect(reqText).toContain('Total Requirements');  
  expect(reqText).toContain('14');
```





FRET

Projects **CREATE**

Current Project **Hanfor**

Total Requirements **2**

Formalized Requirements **100.00 %**

System Components **1**

Requirement Size **92 bytes**

Hierarchical Cluster

Recent Activity

H1

Elements

```
<head>...</head>
<body style>
  <div id="root">
    <div>
      <div>
        <div class="MainView-root-1">
          <div class="MainView-appFrame-2">
            <header class="MuiPaper-root MuiAppBar-root MuiAppBar-positionFixed MuiAppBar-colorPrimary MainView-appBar-3 mui-fixed MuiPaper-elevation4" style=...</header>
            <div class="MuiDrawer-root MuiDrawer-docked">...</div>
            <main class="MainView-content-11">
              <div class="Dashboard-root-164">
                <ul class="MuiImageList-root" style="margin: -2px;">
                  <li class="MuiImageListItem-root" id="qa_db_ili_projects" style="width: 20%; height: 124px; padding: 2px;">== $0
                    <div class="DashboardWidget-root-166">
                      <div class="DashboardWidget-title-167">Current Project</div>
                      <div class="DashboardWidget-statistics-168">
                        "Hanfor"
                        <span class="DashboardWidget-subtitle-169"></span>
                      </div>
                    </div>
                  </li>
                  <li class="MuiImageListItem-root" id="qa_db_ili_requirements" style="width: 20%; height: 124px; padding: 2px;">...</li>
                  <li class="MuiImageListItem-root" id="qa_db_ili_sysComps" style="width: 20%; height: 124px; padding: 2px;">...</li>
                  <li class="MuiImageListItem-root" id="qa_db_ili_reqSize" style="width: 20%; height: 124px; padding: 2px;">...</li>
                  <li class="MuiImageListItem-root" style="width: 60%; height: 724px; padding: 2px;">...</li>
                </ul>
              </div>
            </main>
          </div>
        </div>
      </div>
    </div>
  </body>
</html>
```

Styles

margin -

border -

padding 2 250.391 x 120 2

2

Filter

Show all


- box-sizing border...
- display list-i...
- flex-shrink 0
- font-family Roboto...
- height 124px
- list-style-imag...
- list-style-posi...
- list-style-type none
- padding-bottom 2px
- padding-left 2px
- padding-right 2px
- padding-top 2px
- text-align left
- width 254.39...





# Spectron

CI **failing** code style **standard** david no longer available license **mit**  
npm **v15.0.0** downloads **137k/month**

 On February 1, 2022, Spectron will be officially deprecated by the Electron team. Please read about more about [our planned deprecation here](#).



VerteDinde commented on Nov 2, 2021 • edited ▾

Collaborator

