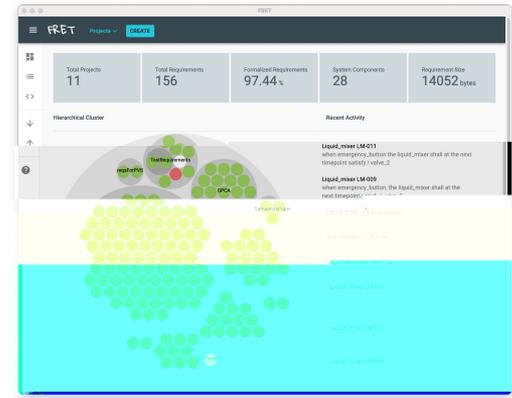


- We can now use automated regression tests but more work is needed
Testing Scenarios

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.

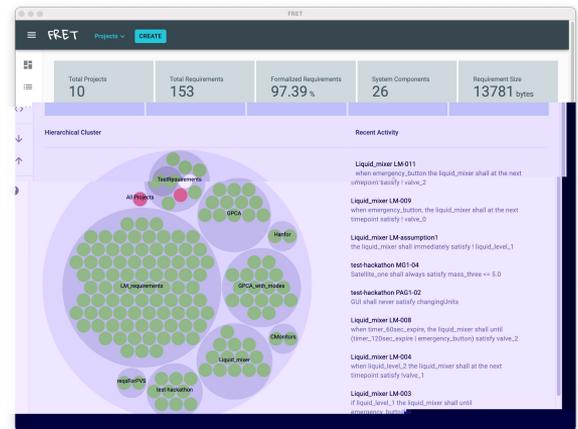
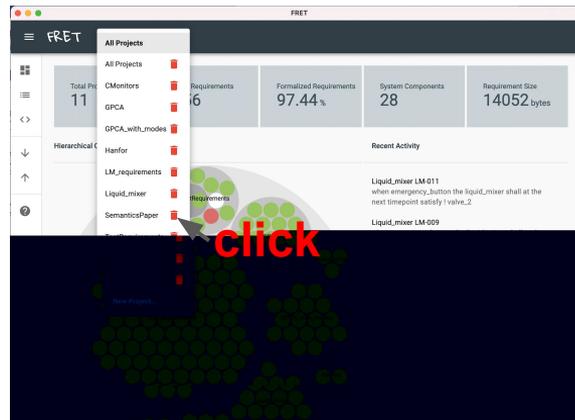
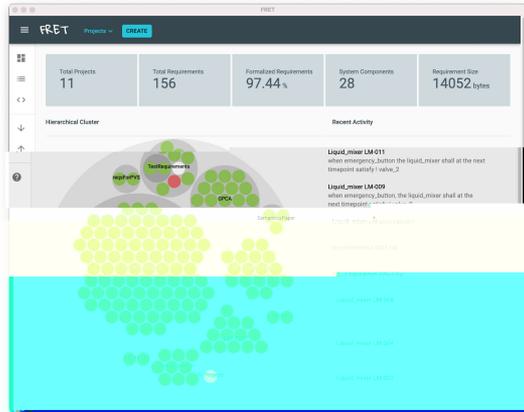
Unit

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

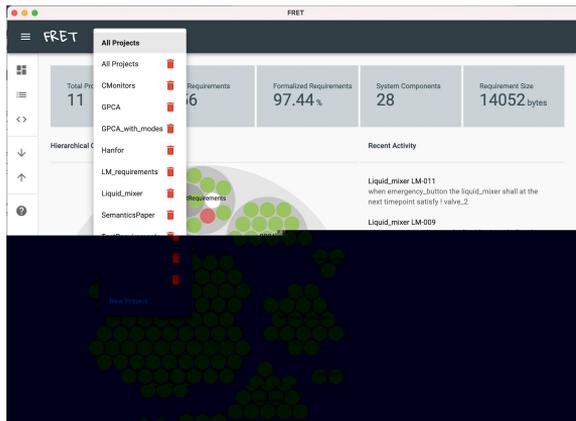
Rationale and Comments

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.

SCOPES CONDITIONS COMPONENT** SHALL* TIMING RESPONSE**

[Empty text area for requirement description]



FRET Projects **CREATE**

Total Projects	Total Requirements	Formalized Requirements	System Components	Requirement Size
11	166	97.44%	28	14052 bytes

Hierarchical Cluster

Recent Activity

click

FRET

All Projects

Total Projects	Total Requirements	Formalized Requirements
11	166	97.44%

Hierarchical Cluster

Recent Activity

Are you sure you want to delete LM_requirements?

Once a project is deleted it cannot be undone. All requirements that belong to this project will also be deleted.

CANCEL OK

click

FRET Projects **CREATE**

Total Projects	Total Requirements	Formalized Requirements	System Components	Requirement Size
10	153	97.39%	26	13781 bytes

Hierarchical Cluster

Recent Activity

Liquid_mixer LM 011
when emergency_button the liquid_mixer shall at the next timepoint satisfy | value_2

Liquid_mixer LM 009
when emergency_button the liquid_mixer shall at the next timepoint satisfy | value_0

Liquid_mixer LM assumption1
the liquid_mixer shall immediately satisfy | liquid_level_1

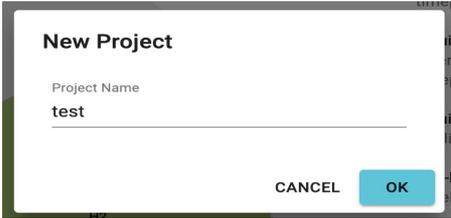
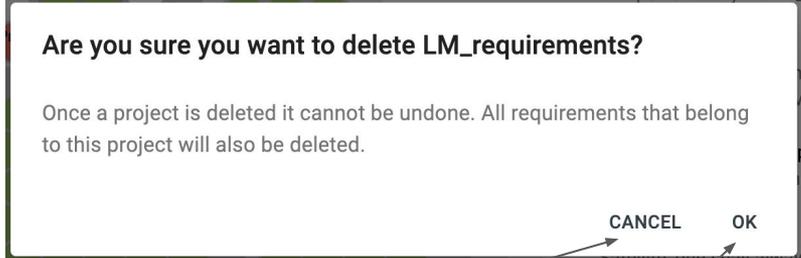
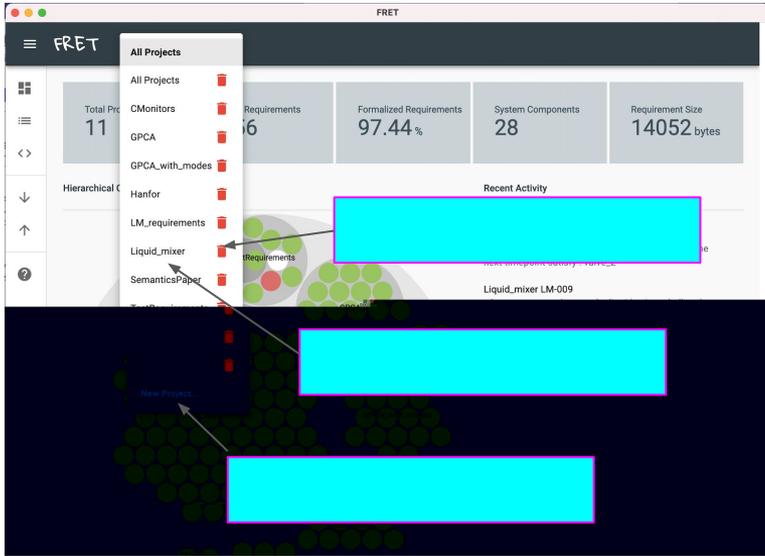
test hackathon MG1-04
Satellite_one shall always satisfy mass_three <= 5.0

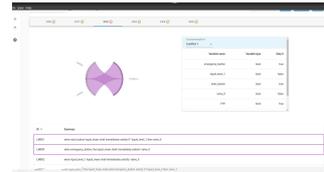
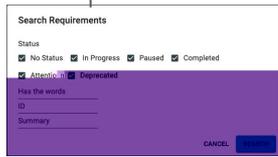
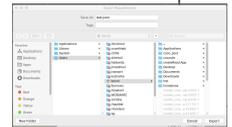
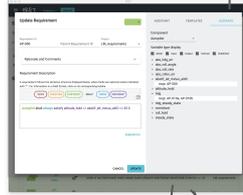
test hackathon PA61-02
CPU shall never satisfy changingUnits

Liquid_mixer LM 008
when timer_60sec_expire the liquid_mixer shall until (time_120sec_expire | emergency_button) satisfy value_2

Liquid_mixer LM 004
when liquid_level_0 the liquid_mixer shall at the next timepoint satisfy | value_1

Liquid_mixer LM 003
if level_level_1 the liquid_mixer shall until (timepoint_satisfy | value_1)






```
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

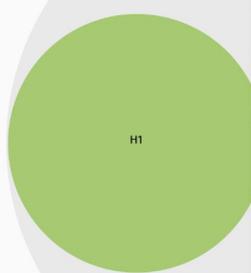
Projects **CREATE**

Current Project **Hanfor**

Total Requirements	2	Formalized Requirements	100.00%	System Components	1	Requirement Size	92 bytes
--------------------	---	-------------------------	---------	-------------------	---	------------------	----------

Hierarchical Cluster

Recent Activity



Developer Tools - file:///Users/ktrinh/fret/hub_qa/fret-electron/app/app.html

Elements Console Sources Network Performance Memory Application Security Audits Devtron Redux Components Profiler

```
<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="MuiImageListItem-item">
      <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>
    </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_formalized" 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_size" style="width: 20%; height: 124px; padding: 2px;">...</li>
  <li class="MuiImageListItem-root" style="width: 60%; height: 724px; padding: 2px;">...</li>
</ul>
```

Styles Computed >>

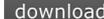
margin	-
border	-
padding	2
width	250.391 x 120
height	124

Filter Show all

- ▶ box-sizing border...
- ▶ display list-i...
- ▶ flex-shrink 0
- ▶ font-family Roboto...
- ▶ height 124px
- ▶ list-style-imag... none
- ▶ list-style-posi... outside
- ▶ 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

