

Parasheet Test Plan and Report 2025-07-21

System Test scenarios:

- User Story 1: As a user, I want to load and view CSV so I can access my spreadsheets
 - 1. Run `parasheet-editor` with the CSV as a command line argument
 - 2. User should see the CSV rendered in the ncurses TUI
 - This test PASSES in our release version.
- User Story 2: As a user, I want to edit a cell so I can modify my spreadsheets
 - 1. Run `parasheet-editor`
 - 2. Press enter to enter EDIT mode
 - 3. Type "foobar"
 - 4. Press Esc to enter NORMAL mode
 - 5. User should see "foobar" in the cell
 - This test PASSES in our release version.
- User Story 3: As a user, I want to run a cell so I can use spreadsheet formulas
 - 1. Run `parasheet-editor` with a sample CSV containing formulas as a command line argument
 - 2. Use WASD to navigate to a cell containing a formula
 - 3. Press R to run the cell
 - 4. The user should see a modified output in the cell
 - This test PASSES in our release version.

Unit tests:

Our project used unit tests. Every major component (something big enough to have its own source file) was tested. Tests were written in `tests/<subcomponent>/. The tests were compiled via makefile, and run by a test runner that we wrote. The make targets all-test, editor-test, cli-test, library-test, and util-test were used for building and running tests. An example test output is shown below:`

```
+-----+
|                               Running Tests...                               |
+-----+
- parasheet-editor/dummy_test... PASS
- parasheet-editor/terminal... PASS
- parasheet-cli/dummy_test... PASS
- libparasheet/ast... LEAK
- libparasheet/dummy_test... PASS
- libparasheet/invalid_string... LEAK
- libparasheet/probe_chain... PASS
- libparasheet/string_intern... LEAK
- libparasheet/symbol... PASS
- libparasheet/tokenizer_test... FAIL
+-----+
|                               Tests Failed D:                               |
+-----+
make: *** [Makefile:239: all-test] Error 1
```

A broken branch demonstrating our test framework

In our release version, all tests pass. The above screenshot is for demonstration purposes.