Automation Testing Tool

User Manual

A step-by-step guide

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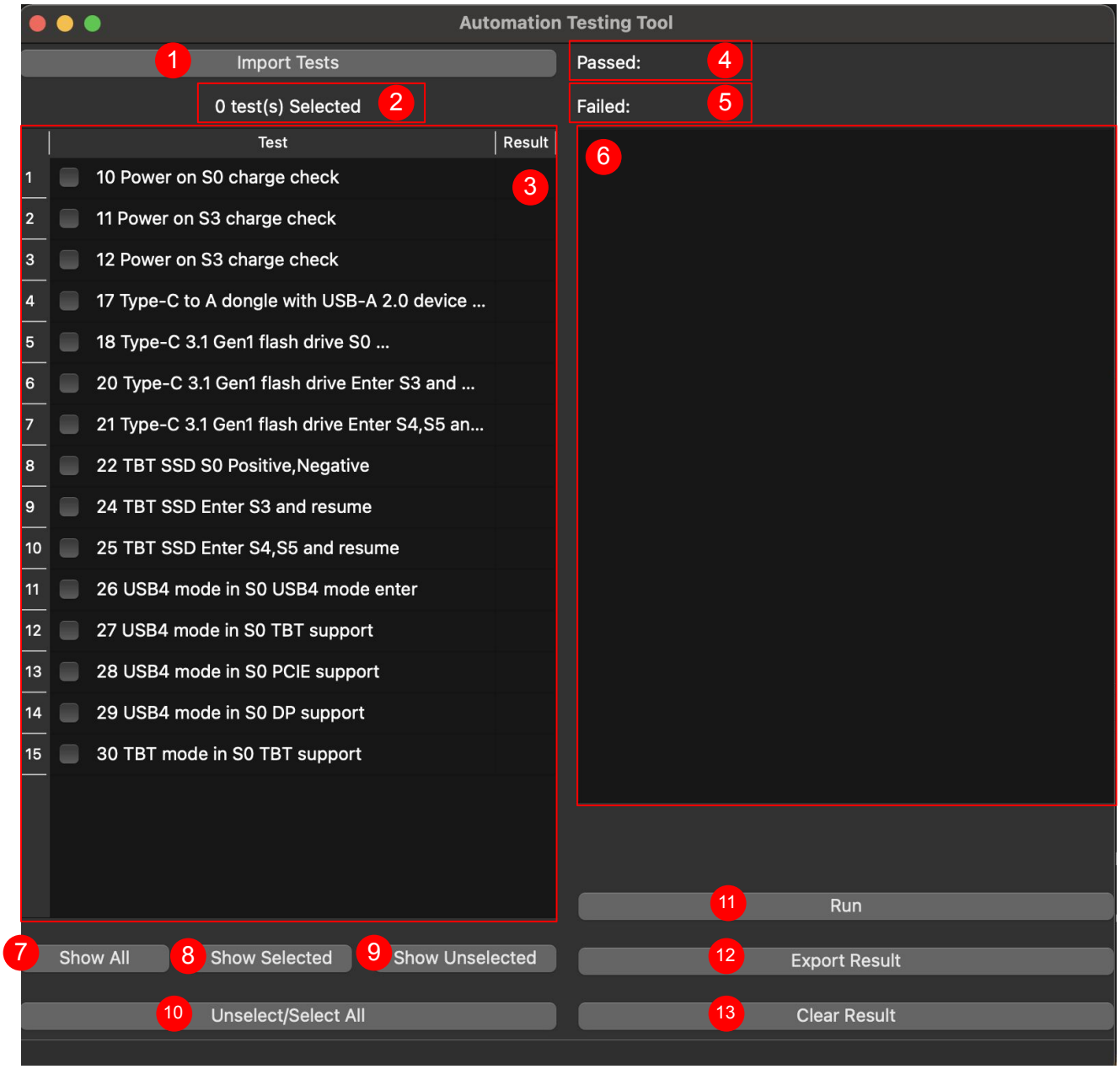
Introduction

This user manual has been meticulously crafted to guide you through the features and functionalities of our automation testing tool. Whether you are a seasoned quality assurance professional or a newcomer to the world of testing, this tool is designed to streamline your testing processes, enhance efficiency, and elevate the overall quality of your software and hardware. In this manual, you will find step-by-step instructions to help you harness the full potential of this tool. From test script creation to execution, results analysis, and beyond, we are committed to providing you with a seamless testing experience.

User Interface Overview



Layout contents
1. Import Tests Button
2. Selected Test Cases Counter
3. Test Case Table
4. Passed Test Cases Counter
5. Failed Test Cases Counter
6. Result Console
7. Show All Button
8. Show Selected Button
9. Show Unselected Button
10. Unselect/Select All Button
11. Run Button
12. Export Result Button
13. Clear Result Button

Instructions

Test Case Writing Format

Accepted file formats: TXT File (*.txt), PYTHON File (*.py)

Single Test Case Structure:

1. Case ID (must be unique)
2. Case name
3. Test case starting keyword
4. Testing code
5. Test case ending keyword

Rules:

1. All modules should be imported on top of the code.
2. Import one package per line in the code only.

   e.g. import numpy, pandas (not allowed).

3. Avoid incorporating the following keywords into the code unless indicating the structure of a test case: CaseID, CaseName, start, end, import.
4. All print statements from custom packages should have flush option set to True to enable live update on the console (not needed for test cases).

   e.g. print("Hello World!", flush = True).

5. Report a passed test case by printing PASS to the console, otherwise the result will be diagnosed as FAIL.

Instructions

Test Case Writing Format

The following sample demonstrates the structure of a standard file that contains multiple test cases.

Test Cases File Sample:

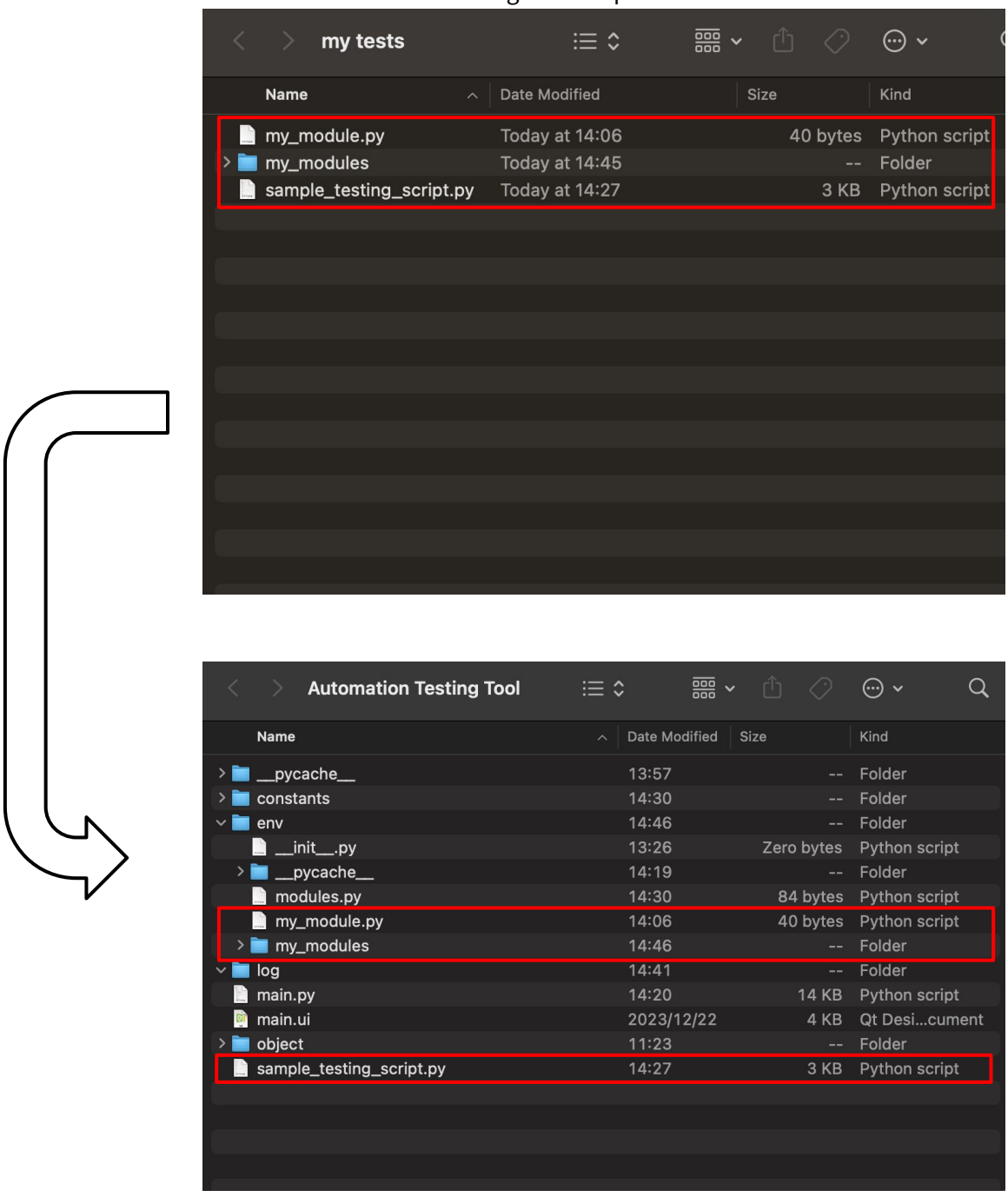
```
import numpy
import pandas

# CaseID=A001
# CaseName=WinUSBReboot
# start
for i in range(2):
        print("Reboot")
print("PASS") # Test case passed
# end

# CaseID=A002
# CaseName=WinUSBHibernate
# start
for i in range(2):
        print("Hibernate")
print("FAIL") # With or without this, the test case failed
# end
```

Instructions

Custom Modules Usage

1. Move all custom modules under the env folder (no need to change import paths inside the test case file)
2. Move the test case file into the PWD of the tool

Figure: Sample Folder



Instructions

Import Tests

1. Click Import Tests Button
2. Select a file that contains test cases
3. Open the file
4. Verify that the test cases are correctly imported into the Test Case Table

Note: Import tests override tests in the Test Case Table from last import

Figure: Empty Test Table

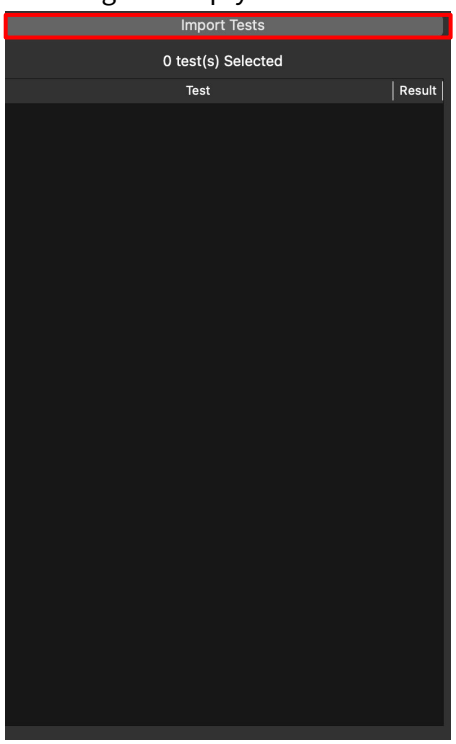


Figure: Imported test cases

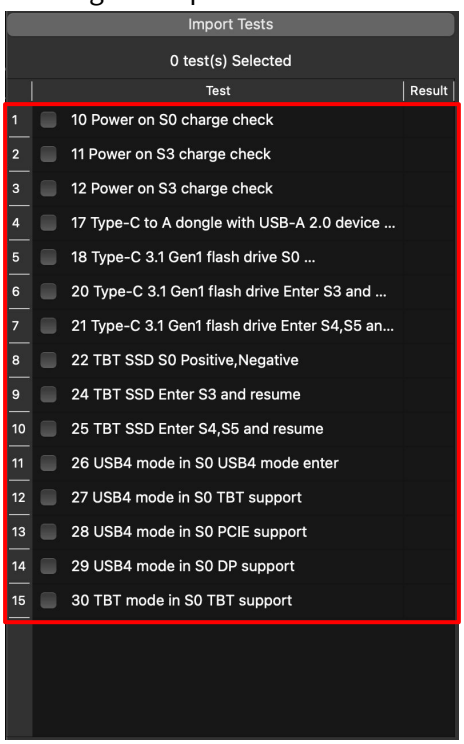
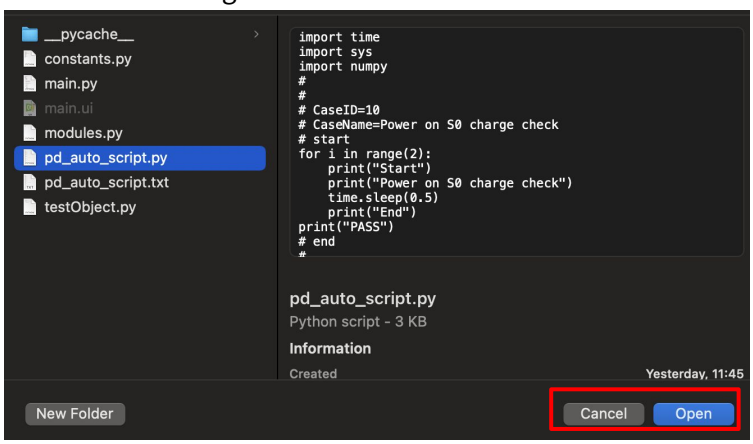


Figure: Test cases file selection



Instructions

User View Options

1. Import tests
2. Select test cases from the Test Case Table
3. Click Show All/Selected/Unselected Button
4. View Test Case Table

Figure: Select a few tests

Figure: Show All Option

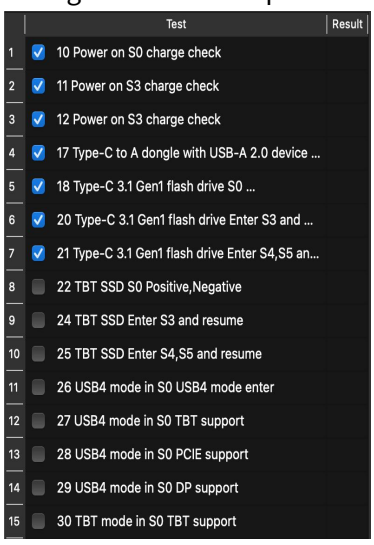


Figure: Show Selected Option

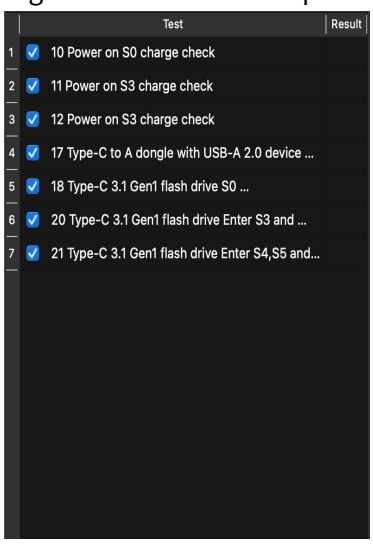
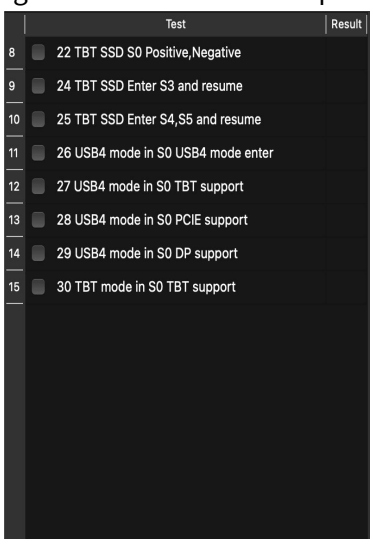


Figure: Show Unselected Option



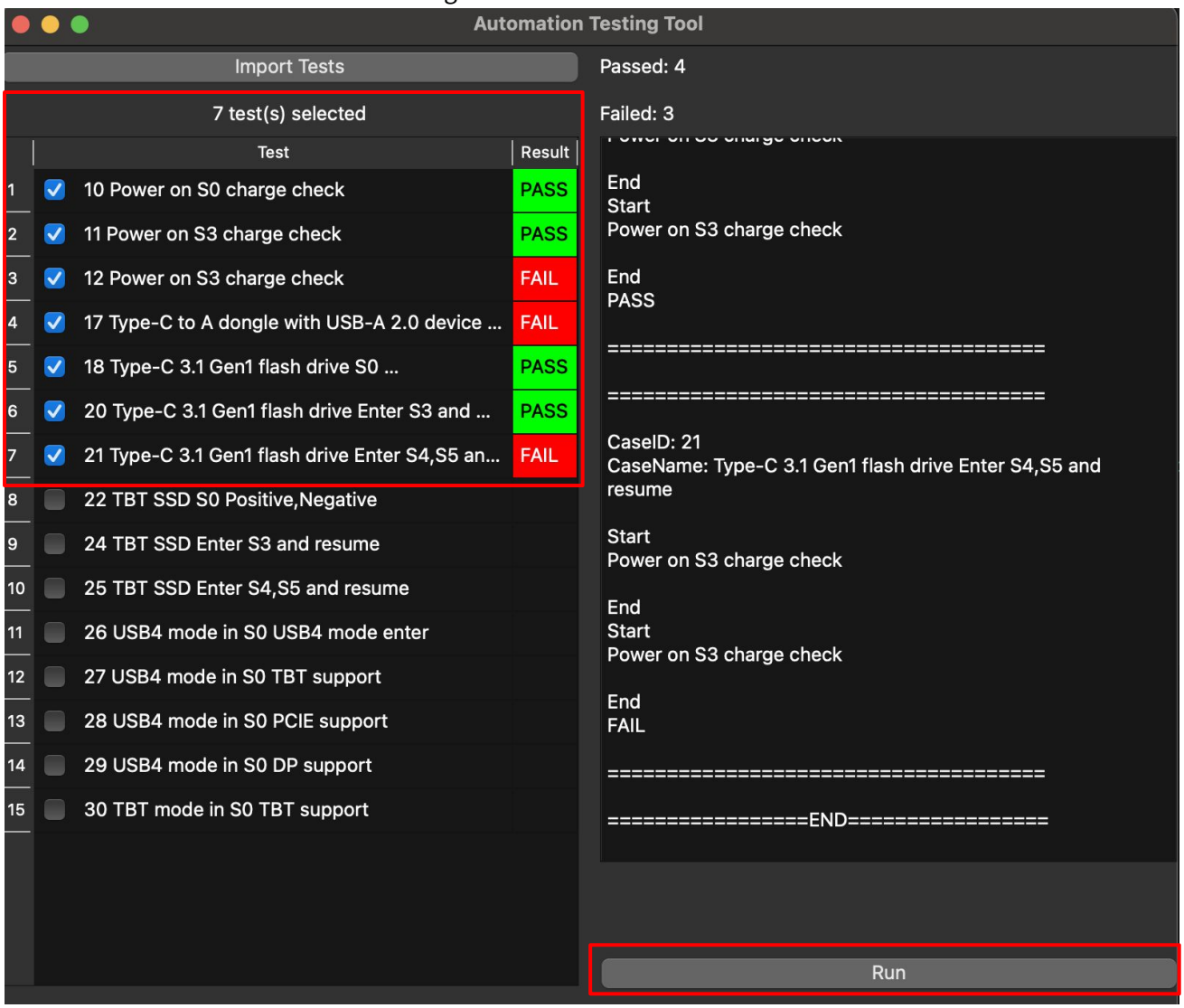
Instructions

Run Tests

1. Import tests from a file
2. Select test cases from the Test Case Table
3. Click Run Button
4. View printed progress and result on the Result Console and Test Case Table

Note: Run tests automatically clears the result before running cases

Figure: Run selected test cases



Instructions

Export Result

1. Import tests
2. Run tests
3. Click Export Result Button
4. Check if the result is correctly logged inside the log folder

Figure: Result obtained after running test cases

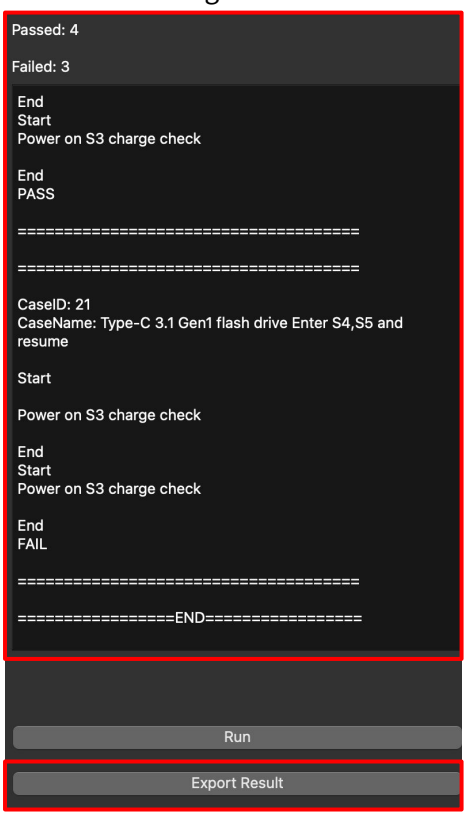
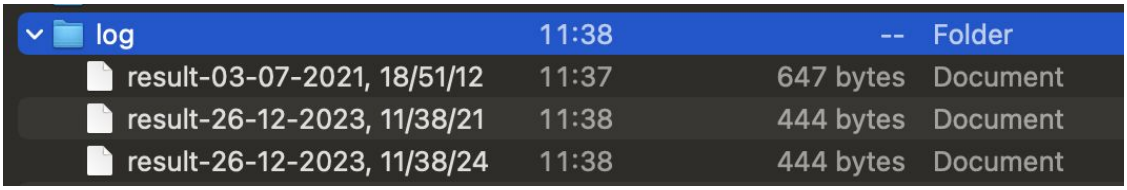


Figure: Result is correctly logged inside the log folder



Instructions

Clear Result

1. Import tests
2. Run tests
3. Click Clear Result Button
4. Ensure that result has been removed from Result Console and Test Table

Figure: Run selected test cases

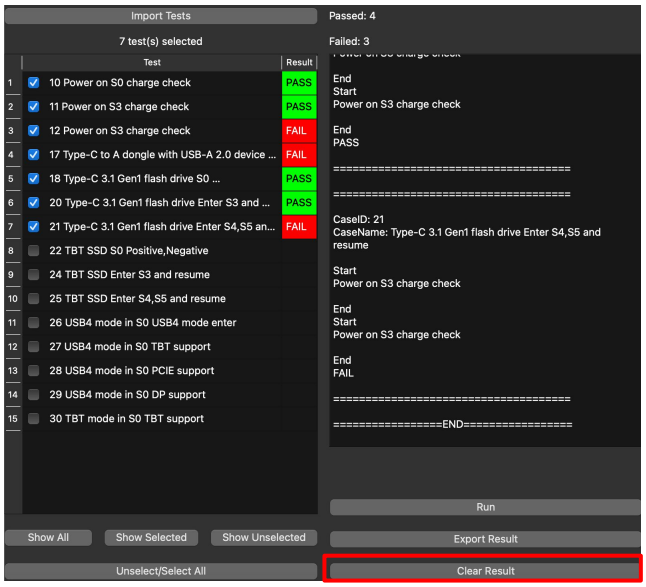


Figure: Result cleared