Arm and disarm

Instrumenting in-place

Scribble supports instrumenting files in-place for interoperability with user-specific testing and deployment environments. This is specifed with the--output-mode files option. One use case for this mode is to run the user test suite on the instrumented code. For example lets assume we have these 2 files:

Base.sol

```
Copy contract Base { }
```

Foo.sol

```
Copy import "Base.sol"; contract Foo is Base { /// #if_succeeds {:msg "P1"} y == x + 1; function inc(uint x) public pure returns (uint y) { return x+1; } }
```

We can instrument them in-place using the following command:

```
Copy scribbleFoo.sol--output-modefiles
```

This would generate 2 new files -Foo.instrumented.sol and__scribble_ReentrancyUtils.sol .Foo.instrumented.sol is the instrumented counterpart ofFoo.sol , and__scribble_ReentrancyUtils.sol contains a helper contract. Now a user can manually swapFoo.instrumented.sol withFoo.sol, re-build their contracts and run tests on the instrumented contracts, and later swap the originals back. However these steps are tedious, which is whyscribble automates them with the--arm and--disarm options. We can add the--arm option when instrumenting like so:

```
Copy scribbleFoo.sol--output-modefiles--arm--instrumentation-metadata-filemd.json
```

```
Copy Foo.sol -> Foo.sol.instrumented Copying Foo.sol to Foo.sol.original Copying Foo.sol.instrumented to Foo.sol
```

Scribble performed 4 steps:

1. Emit the instrumented version ofFoo.sol
2. -Foo.instrumented.sol
3. Make a copy of the originalFoo.sol
4. asFoo.original.sol
5. ReplaceFoo.sol
6. withFoo.instrumented.sol
7. Emtited a json metadata filemd.json
8. that is used to keep track of what files were modifies for disarming.
9.

At this point if you rebuild the contracts you would get the instrumented version of the code. To revert back to the original un-instrumented code its sufficient to run the same command with--disarm instead of--arm :

```
Copy scribbleFoo.sol--output-modefiles--disarm--instrumentation-metadata-filemd.json
Copy Moving Foo.sol.original to Foo.sol Removing Foo.sol.instrumented Removing
/home/dimo/work/consensys/tmp/test_pass/scribble-getting-started/installation_examples/__scribble_ReentrancyUtils.sol
Removing md.json
```

Note that as long as you are inside of a npm package directory structure, youdon't need to specify the--instrumentation-metadata-file option. Scribble will automatically detect the project root (the nearest parent folder with a package.json) and place the instrumentation metadata file there). If a project root is not detected, scribble will throw an error asking you to specify--instrumentation-metadata-file explicitly.

Previous CLI Usage Next Assertion Checking Modes Last updated2 years ago

On this page Was this helpful?