

Test and verification techniques in conformance checking

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Overview

1 Why testing

2 Conformance

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→ Conformance is hard to express



How to check conformance

Expressing conformance \rightarrow checking conformance

Test vs. verification

Test

You *may* find an error after the execution of a test.

Verification

The evaluation of whether or not something complies with the specified conformance relation.

Monkey testing

Infinite monkey theorem

The **infinite monkey theorem** states that a monkey hitting keys at random on a typewriter keyboard for an infinite amount of time will almost surely type a given text, such as the complete works of William Shakespeare.[1]



Model checking

```
main = do putStrLn "What is the
the answer to life the universe and
everything?" answer j- getLine case
answer of "42" -> putStrLn "You're
right" _ >
putStrLn" Nope, tryagain" >> main
```

dtrn this is d

References



Infinite monkey effect.

The End