

SOFTWARE TESTING

CO3015 / CO5252

CH4. BLACK-BOX TESTING

types.Operator):
X mirror to the selected
object.mirror_mirror_x"
for X"

Content

- ▶ Equivalence class partitioning technique
- ▶ Boundary value analysis technique
- ▶ Domain analysis technique
- ▶ Decision table technique
- ▶ Cause-effect graph technique
- ▶ Pairwaise technique
- ▶ State transition technique
- ▶ Use-case testing

Black-box testing

<https://www.guru99.com/black-box-testing.html>

- ▶ Black Box Testing is a software testing method in which the functionalities of software applications are tested without having knowledge of internal code structure, implementation details and internal paths. Black Box Testing mainly focuses on input and output of software applications and it is entirely based on software requirements and specifications. It is also known as Behavioral Testing.

Equivalence class partitioning technique

Chapter 6

Equivalence Class Testing



Boundary value analysis technique

Chapter 5

Boundary Value Testing



Domain analysis technique

Decision table technique

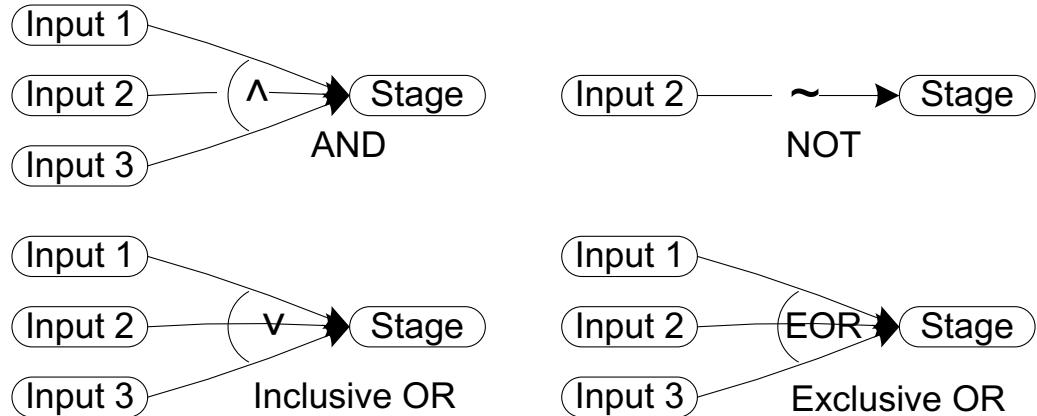
Chapter 7

Decision Table-Based Testing



Cause-effect graph technique

Cause and Effect Graphs (basic gates)



Pairwise technique

Chapter 20

A Closer Look at All Pairs Testing



State transition technique

Introduction to Software Testing Chapter 8.5 Logic Coverage for FSMs

Paul Ammann & Jeff Offutt

<http://www.cs.gmu.edu/~offutt/softwaretest/>

Use-case testing

Introduction to Software Testing
(2nd edition)
Chapter 7.6

Graph Coverage for Use Cases

Paul Ammann & Jeff Offutt

<http://www.cs.gmu.edu/~offutt/softwaretest/>

Summary

- ▶ Black-box testing
 - ▶ Spec -> Test cases -> Test -> Report
- ▶ Equivalence class partitioning technique
- ▶ Boundary value analysis technique
- ▶ Domain analysis technique
- ▶ Decision table technique
- ▶ Cause-effect graph technique
- ▶ Pairwaise technique
- ▶ State transition technique
- ▶ Use-case testing