



COM 3529

# SOFTWARE TESTING & ANALYSIS

Professor Phil McMinn

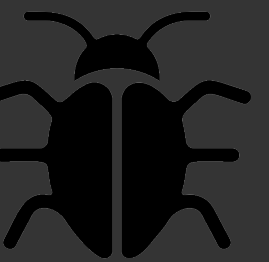
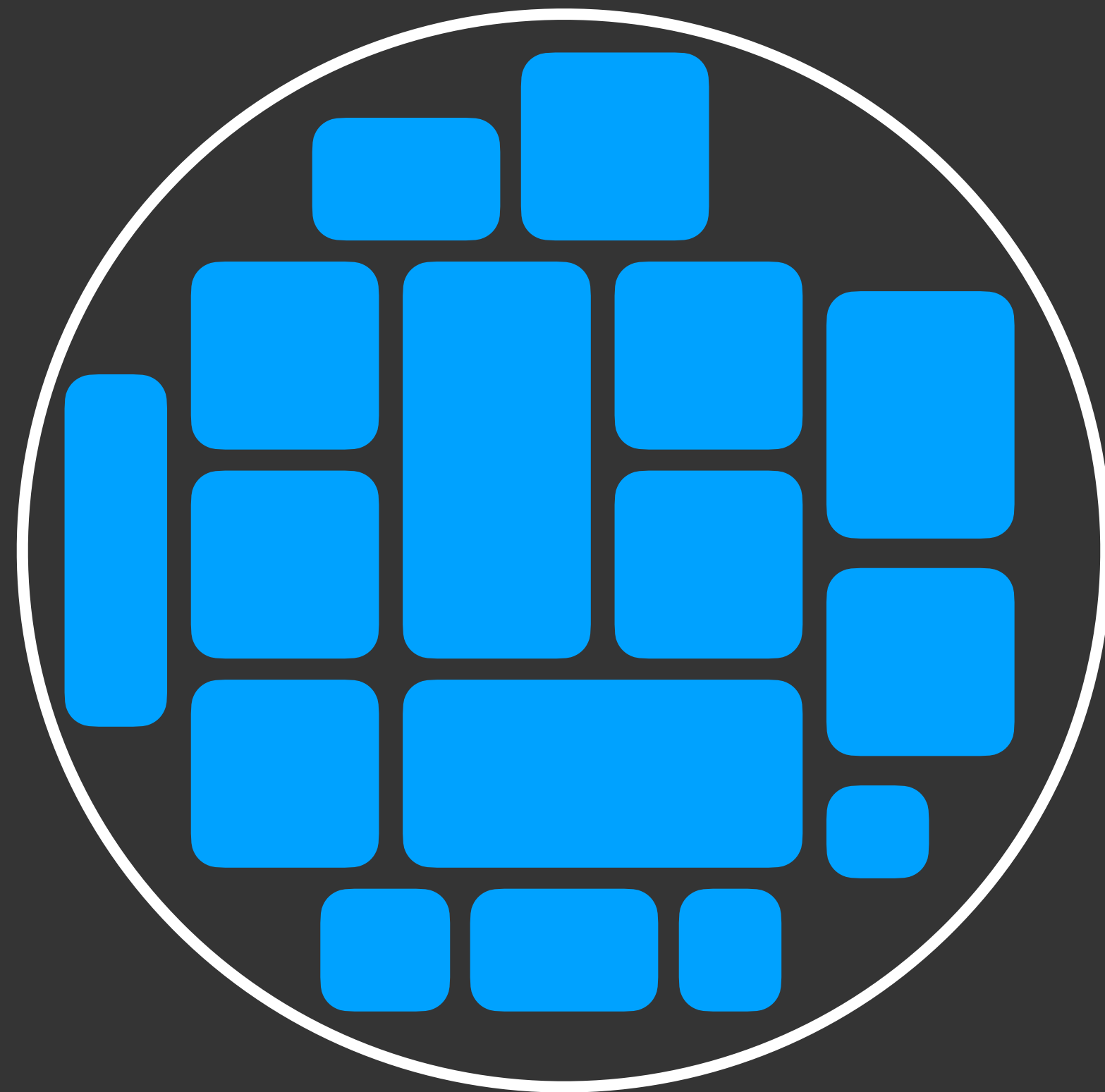
## 2.1 An Introduction to Coverage Criteria for Testing

# Three Reasons Why Testing is Hard Problem for Programs of Any Complexity

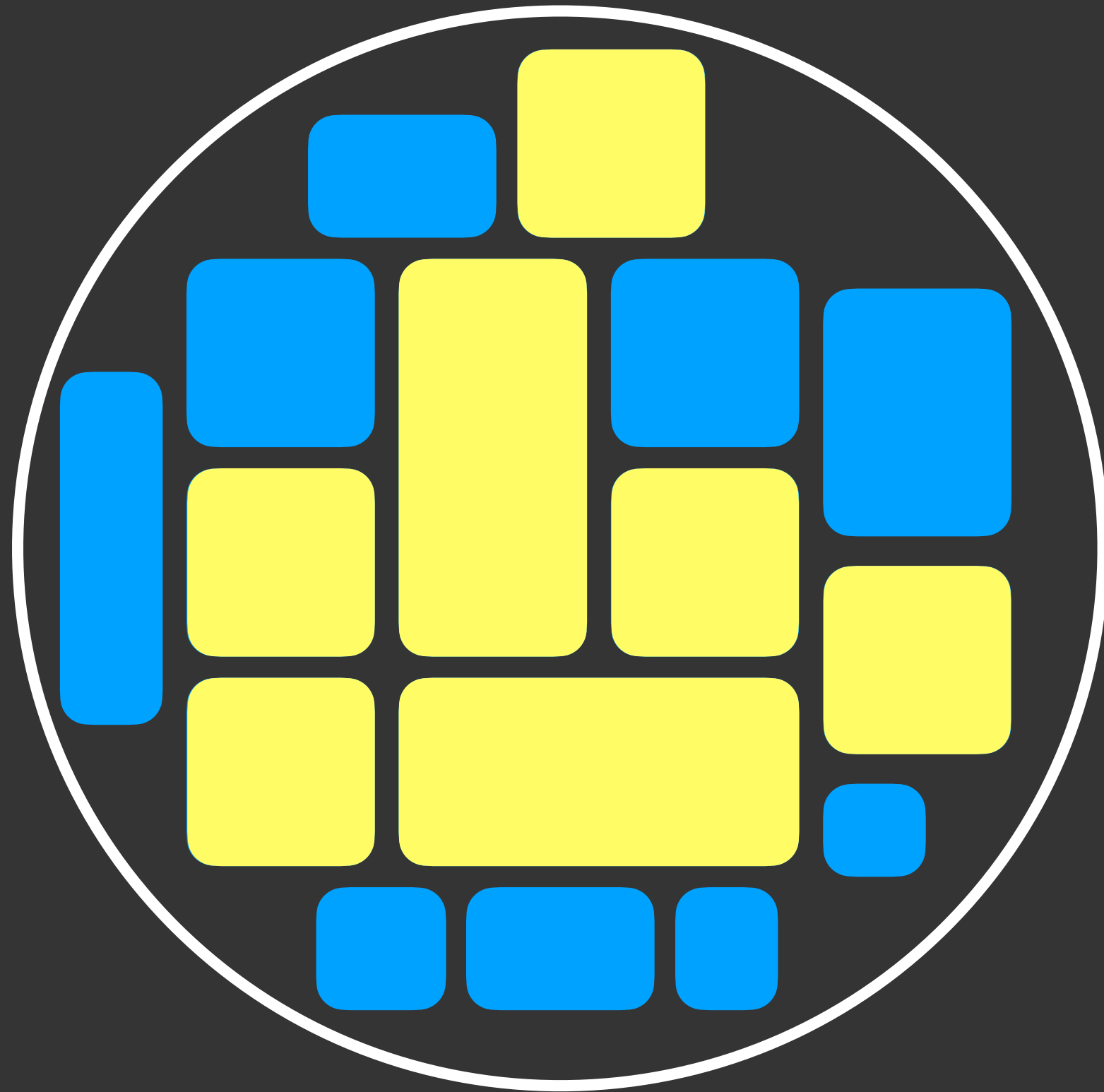
1. Testing is Undecidable
2. Testing is Intractable
3. Testing involves The Oracle Problem



# What is a Coverage Criterion?



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7 elements  
covered of 16 =  
44% coverage



# Important Terms

Test Requirement

Coverage Criterion

Subsumption

*Infeasible* Test  
Requirement

Coverage Level



**BLACK BOX**



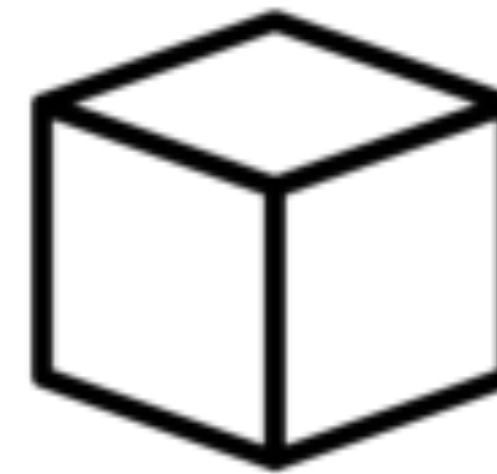
**ZERO KNOWLEDGE**

**GRAY BOX**



**SOME KNOWLEDGE**

**WHITE BOX**



**FULL KNOWLEDGE**

