

Category-partition Method

- Key idea
 - Method for creating test suites
 - Role of test engineer

Steps

- Develop “Formal Test Specification”
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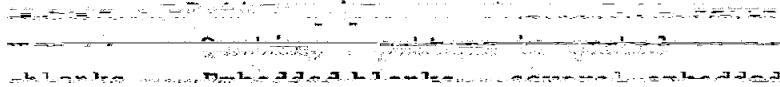
Test Specs - Environment

Environments:

Number of occurrences of pattern in file	
none	
exactly one	
more than one	
Start: _____	End: _____
before the pattern	! after the pattern
_____	_____
_____	_____

Contradictory Requirements

- Can we even generate such a test case?



Constraints

- Properties
 - [property A, B, ...]
 - A and B are property names
 - E.g., [property Empty]
- Selector expression
 - [if A]
 - E.g., [if Empty]

Adding Constraints

Parameters:

1. Pattern file: [Pattern File]

2. Target file: [Target File]

3. Quoting: [Quoting]

4. Pattern is quoted: [Pattern is quoted]

5. Property Occurrence: [Property Occurrence]

6. Number of occurrence: [Number of occurrence]

7. Pattern occurrences on target line: [Pattern occurrences on target line]

8. Path: [Path]

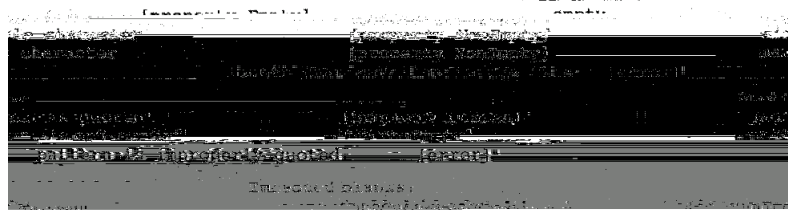
Number of Test Frames

- 678
- Can we reduce them?

- 678
- Can we reduce them?

Parameters:

Adding [error] and [single]



Number of Test Frames

- [error]
 - 125
- [single]
 - 40

Generating Test Cases

- Use a constraint solver
- Choose specific values that satisfy the constraints