

A.4 Base Use Case Checklist

1. Format complete?
 - Use case name
 - Use case ID
 - Narrative description
 - Preconditions
 - Sequence of inputs
 - Sequence of outputs
 - Postconditions
2. Logic questions?
 - Any missing precondition?
 - Any missing postcondition?
 - Input sequence OK?
 - Output sequence OK?
 - "Correctness" (no \$5 notes)
3. Consistency
 - Naming conventions acceptable?
 - Are synonyms present?
 - Are synonyms "standardized" into one consistent term?
4. "Completeness"
 - Any missing use cases?
 - Flow across use cases?
 - Matching preconditions with postconditions?
 - Extra use cases?
 - Traceable to specifications?
5. Conformance to Base Use Case Standard

A.5 Base Use Case

For the purpose of the m defined with respect to th

- Fault Severity 1 (least)
- Use case format
 - Use case name
 - Use case ID
 - Narrative description
 - Preconditions
 - Sequence of inputs
 - Sequence of outputs
 - Postconditions
 - Typographical
 - Grammar errors
 - Conformance

- Fault Severity 2
- Consistency
 - Naming conventions
 - Synonyms
 - Ambiguity
 - Logic questions
 - Any missing precondition?
 - Any missing postcondition?
 - Input sequence
 - Output sequence
 - "Correctness"

- Fault Severity 3 (most)
- Completeness
 - Any missing use cases?
 - Any missing requirements?
 - Flow across use cases
 - Matching preconditions with postconditions
 - Extra use cases
 - Traceable to specifications
 - Missing steps/flows
 - Extra steps/flows
 - Customer Requirements

5.5 Base Use Case Fault Severity Levels

For the purpose of the review exercise, three fault severity levels are sufficient. These levels are defined with respect to the Use Case Review Checklist.

Fault Severity 1 (least severe)

- Use case format correct
 - Use case name
 - Use case ID
 - Narrative description
 - Preconditions
 - Sequence of inputs
 - Sequence of outputs
 - Postconditions
- Typographical errors
- Grammar errors
- Conformance to Use Case Standard

Fault Severity 2

- Consistency faults
 - Naming conventions
 - Synonyms
 - Ambiguous/too general
- Logic questions
 - Any missing precondition?
 - Any missing postcondition?
 - Input sequence OK?
 - Output sequence OK?
 - "Correctness" (e.g., no \$5 notes)

Fault Severity 3 (most severe)

- Completeness
 - Any missing precondition?
 - Any missing use cases or features because they are not specified in the Customer Requirements?
- Flow across use cases
- Matching preconditions with postconditions
- Extra use cases
- Traceable to specifications? "Incorrectness"
- Missing steps/use cases?
- Extra steps/features (They should be removed because they are not included in the Customer Requirements.)

A.6 Base Use Case Technical Inspection Forms

The reviewers, including the review leader and recorder, presents the result of their work product examination on a form similar to the one in Table A.1. These individual reports are merged by the review leader into the preliminary issues list (Table A.2).

Table A.1 Individual Inspection Ballot

Work Product Information					
Reviewer name					
Preparation date					
Reviewer preparation time					
	Location		Checklist		
Issue #	Page	Line	Item	Severity	Description
1	1	18	Typo	1	Change "accound" to "account"
2					
3					

Table A.2 Inspect

Review team members	
Leader	
Recorder	
Reviewer	
Reviewer	
Reviewer	
Producer	
Meeting date	
Total preparation time	
Team recommendations	
Action Item #	Who?
1	

Table A.2 Inspection Summary

Work Product Information						
Review team members						
Leader						
Recorder						
Reviewer						
Reviewer						
Reviewer						
Producer						
Meeting date						
Total preparation time						
Team recommendation						
		Location		Checklist		
Action Item #	Who?	Page	Line	Item	Severity	Description
1		1	18	Typo	1	Change "accound" to "account"

A.7 Sample Inspection Report Outline

Technical Inspection Report
for
DemoATM System Simulator Use Case Descriptions
By
<Inspection Team Members>

Table of Contents

- I. Introduction and Technical Inspection Process
 - II. Preliminary Issue List
 - III. Prioritized Action Item List
 - IV. Summary of Individual Ballots and Product Metrics
 - V. Summary of Process Evaluations
 - VI. Conclusion
- Reference
- Attachments
- Attachment A: DemoATM Simulator Use Cases
 - Attachment B: DemoATM Simulator Customer Requirements
 - Attachment C: Technical Review Forms
 - 1. Review Report
 - 2. Individual Ballots
 - Attachment D: Fault Classification (by Severity)
 - Attachment E: Use Case Review Checklist
 - Attachment F: Technical Review Agenda

Index

Page numbers followed by f a

A

- Abstraction, levels of, 12, 12f
- Accept Petri net, 363, 364f
- Action-centered modeling, 2
- Adaptive testing, 371
- Ad hoc testing, 84
- Adjacency matrices, 56, 61, 2
- Agile model-driven development
- Agile testing, 214–217, *see also*
 - Extreme Programming (XP)
 - generic agile life cycle, 214
 - scrum, 216–217, 217f
 - test-driven development
- Air traffic controller, 356
- Air traffic management systems
 - classes, 355–356
 - use cases and sequence diagrams, 356
- All Pairs testing, 395–405
 - All Pairs technique, 395–405
 - failures due only to program inputs, 395
 - independent variables, 395
 - input order, 399–403
 - program inputs, 396
 - appropriate applications, 395
 - Automatic Efficient Test Generation (AETG), 395
 - combinatorial explosion, 395
 - dynamic applications, 400
 - Fallacy of Extension, 400
 - informal fallacies, 404
 - latin squares, 395
 - NIST study, 404
 - Notepad input file, 397
 - orthogonal arrays, 395
 - reactive applications, 400
 - recommendations for, 400
 - static applications, 404
 - statistical design of experiments, 395
 - transformational applications, 395