Software and systems engineering - Software testing - Part 3: Test documentation

Contents

Page

Foreword ..... **vii**

Introduction ..... **viii**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **1**

4 Conformance **5**
4.1 Intended usage 5
4.1.1 General 5
4.1.2 Full conformance 5
4.1.3 Tailored conformance 5

5 Common information for all test documentation **6**
5.1 Overview 6
5.2 Common information elements 6
5.2.1 Unique identifier 6
5.2.2 Issuing organization 6
5.2.3 Approval authority 6
5.2.4 Change history 6
5.2.5 Status 6
5.2.6 Introduction 6
5.2.7 Scope 7
5.2.8 References 7
5.2.9 Glossary 7

6 Organizational test process documentation **7**
6.1 Overview 7
6.2 Test policy 7
6.2.1 Overview 7
6.2.2 Objectives of testing 7
6.2.3 Test process 8
6.2.4 Test organization structure 8
6.2.5 Tester training 8
6.2.6 Tester ethics 8
6.2.7 Standards 8
6.2.8 Other relevant policies 8
6.2.9 Measuring the value of testing 8
6.2.10 Test asset archiving and reuse 8
6.2.11 Test process improvement 8
6.3 Organizational test practices 8
6.3.1 Overview 8
6.3.2 Organization-level test practice statements 9
6.3.3 Test level/type-specific organizational test practice statements 10

7 Test management processes documentation **12**
7.1 Overview 12
7.2 Test plan 12
7.2.1 Overview 12
7.2.2 Context of testing 12
7.2.3 Assumptions and constraints 13
7.2.4 Stakeholders 13
7.2.5 Testing communication 13
7.2.6 Risk register 13
7.2.7 Test strategy 14
7.2.8 Testing activities and estimates 16
7.2.9 Staffing 16

7.2.10 Schedule ... 17
7.3 Test status report ... 17
7.3.1 Overview ... 17
7.3.2 Test status ... 17
7.3.3 Reporting period ... 18
7.3.4 Progress against test plan ... 18
7.3.5 Factors blocking progress ... 18
7.3.6 Test measures ... 18
7.3.7 New and changed risks ... 18
7.3.8 Planned testing ... 18
7.4 Test completion report ... 18
7.4.1 Overview ... 18
7.4.2 Summary of testing performed ... 18
7.4.3 Deviations from planned testing ... 18
7.4.4 Test completion evaluation ... 19
7.4.5 Factors that blocked progress ... 19
7.4.6 Test measures ... 19
7.4.7 Residual risks ... 19
7.4.8 Test deliverables ... 19
7.4.9 Reusable test assets ... 19
7.4.10 Lessons learned ... 19

8 Dynamic test processes documentation ... 19
8.1 Overview ... 19
8.2 Test model specification ... 20
8.2.1 Overview ... 20
8.2.2 Unique identifier ... 20
8.2.3 Objective ... 21
8.2.4 Priority ... 21
8.2.5 Test strategy extract ... 21
8.2.6 Test model ... 21
8.2.7 Traceability ... 21
8.3 Test case specification ... 21
8.3.1 Overview ... 21
8.3.2 Test coverage items ... 21
8.3.3 Test cases ... 22
8.4 Test procedure specification ... 23
8.4.1 Overview ... 23
8.4.2 Unique identifier ... 24
8.4.3 Objective ... 24
8.4.4 Priority ... 24
8.4.5 Start up ... 24
8.4.6 Ordered test cases ... 24
8.4.7 Relationship to other procedures ... 24
8.4.8 Stop and wrap up ... 24
8.5 Test data requirements ... 25
8.5.1 Overview ... 25
8.5.2 Unique identifier ... 25
8.5.3 Description ... 25
8.5.4 Responsibility ... 25
8.5.5 Period needed ... 25
8.5.6 Resetting needs ... 25
8.5.7 Archiving or disposal ... 25
8.6 Test environment requirements ... 25
8.6.1 Overview ... 25
8.6.2 Unique identifier ... 26
8.6.3 Test environment item ... 26
8.6.4 Description ... 26
8.6.5 Responsibility ... 27

8.6.6 Period needed ... 27
8.7 Test data readiness report ... 27
8.7.1 Overview ... 27
8.7.2 Unique identifier ... 27
8.7.3 Description of status ... 27
8.8 Test environment readiness report ... 27
8.8.1 Overview ... 27
8.8.2 Unique identifier ... 27
8.8.3 Description of status ... 27
8.9 Actual results and test result ... 28
8.9.1 General ... 28
8.9.2 Actual results ... 28
8.9.3 Test result ... 28
8.10 Test execution log ... 28
8.10.1 Overview ... 28
8.10.2 Unique identifier ... 29
8.10.3 Date/time ... 29
8.10.4 Description ... 29
8.10.5 Impact ... 29
8.11 Test incident report ... 29
8.11.1 Overview ... 29
8.11.2 Timing information ... 30
8.11.3 Originator ... 30
8.11.4 Context ... 30
8.11.5 Description of the incident ... 30
8.11.6 Originator's assessment of severity ... 30
8.11.7 Originator's assessment of priority ... 30
8.11.8 Risk ... 31
8.11.9 Status of the incident ... 31

Annex A (normative) **ISO/IEC/IEEE 29119-3 requirements, recommendations and permissions** ... **32**

Annex B (informative) **Overview of examples** ... **37**

Annex C (informative) **Test policy** ... **39**

Annex D (informative) **Organizational test practices** ... **41**

Annex E (informative) **Test plan** ... **46**

Annex F (informative) **Test status report** ... **54**

Annex G (informative) **Test completion report** ... **58**

Annex H (informative) **Test model specification** ... **60**

Annex I (informative) **Test case specification** ... **62**

Annex J (informative) **Test procedure specification** ... **64**

Annex K (informative) **Test data requirements** ... **66**

Annex L (informative) **Test environment requirements** ... **67**

Annex M (informative) **Test data readiness report** ... **68**

Annex N (informative) **Test environment readiness report** ... **69**

Annex O (informative) **Actual results** ... **70**

Annex P (informative) **Test result** ... **71**

Annex Q (informative) **Test execution log** ... **73**

Annex R (informative) **Incident report** ... **74**

Annex S (informative) **Mappings to IEEE 829:2008 (superseded)** ... **76**

Annex T (informative) **Test models** **82**
Bibliography **83**
IEEE Notices and Abstract **85**