ISO/IEC 5962:2021-08 (E)

Information technology - SPDX® Specification V2.2.1

Contents

Page

Foreword xiii

Introduction xiii

1 Scope 1

2 Normative references 1

3 Terms and definitions 2

4 Conformance 3
4.1 SPDX Current and Previous Versions 3
4.2 Obsolete features 3
4.3 Alternate notation for some conformance requirements 3
4.4 Standard data format requirements 4
4.5 Trademark Compliance 5
4.6 The SPDX Lite profile 5

5 Composition of an SPDX document 6
5.1 What this specification covers 6
5.2 Sections 7
5.2.1 SPDX document creation information section 7
5.2.2 Package information section 7
5.2.3 File information section 8
5.2.4 Snippet information section 8
5.2.5 Other licensing information detected section 9
5.2.6 Relationships between SPDX elements information section 9
5.2.7 Annotations information section 9
5.2.8 Review information section 9
5.3 What this specification does not cover 10

6 SPDX document creation information section 10
6.1 SPDX version field 10
6.1.1 Description 10
6.1.2 Intent 10
6.1.3 Examples 10
6.2 Data license field 11
6.2.1 Description 11
6.2.2 Intent 11
6.2.3 Examples 11
6.3 SPDX identifier field 12
6.3.1 Description 12
6.3.2 Intent 12
6.3.3 Examples 12
6.4 Document name field 12
6.4.1 Description 12
6.4.2 Intent 13
6.4.3 Examples 13
6.5 SPDX document namespace field 13
6.5.1 Description 13
6.5.2 Intent 14
6.5.3 Examples 15

6.6 External document references field 15
6.6.1 Description 15
6.6.2 Intent 15
6.6.3 Examples 16
6.7 License list version field 16
6.7.1 Description 16
6.7.2 Intent 17
6.7.3 Examples 17
6.8 Creator field 17
6.8.1 Description 17
6.8.2 Intent 18
6.8.3 Examples 18
6.9 Created field 18
6.9.1 Description 18
6.9.2 Intent 19
6.9.3 Examples 19
6.10 Creator comment field 19
6.10.1 Description 19
6.10.2 Intent 20
6.10.3 Examples 20
6.11 Document comment field 20
6.11.1 Description 20
6.11.2 Intent 21
6.11.3 Examples 21

7 Package information section 21
7.1 Package name field 21
7.1.1 Description 21
7.1.2 Intent 21
7.1.3 Examples 21
7.2 Package SPDX identifier field 22
7.2.1 Description 22
7.2.2 Intent 22
7.2.3 Examples 22
7.3 Package version field 23
7.3.1 Description 23
7.3.2 Intent 23
7.3.3 Examples 23
7.4 Package file name field 23
7.4.1 Description 23
7.4.2 Intent 24
7.4.3 Examples 24
7.5 Package supplier field 24
7.5.1 Description 24
7.5.2 Intent 25
7.5.3 Examples 25
7.6 Package originator field 25
7.6.1 Description 25
7.6.2 Intent 26
7.6.3 Examples 26
7.7 Package download location field 27
7.7.1 Description 27
7.7.2 Intent 28
7.7.3 Examples 28
7.8 Files analyzed field 32
7.8.1 Description 32
7.8.2 Intent 32
7.8.3 Examples 33
7.9 Package verification code field 33
7.9.1 Description 33
7.9.2 Intent 34
7.9.3 Examples 34

7.10 Package checksum field 35
7.10.1 Description 35
7.10.2 Intent 35
7.10.3 Examples 35
7.11 Package home page field 36
7.11.1 Description 36
7.11.2 Intent 37
7.11.3 Examples 37
7.12 Source information field 37
7.12.1 Description 37
7.12.2 Intent 38
7.12.3 Examples 38
7.13 Concluded license field 38
7.13.1 Description 38
7.13.2 Intent 39
7.13.3 Examples 39
7.14 All licenses information from files field 40
7.14.1 Description 40
7.14.2 Intent 40
7.14.3 Examples 41
7.15 Declared license field 41
7.15.1 Description 41
7.15.2 Intent 42
7.15.3 Examples 42
7.16 Comments on license field 43
7.16.1 Description 43
7.16.2 Intent 43
7.16.3 Examples 43
7.17 Copyright text field 44
7.17.1 Description 44
7.17.2 Intent 44
7.17.3 Examples 44
7.18 Package summary description field 45
7.18.1 Description 45
7.18.2 Intent 45
7.18.3 Examples 45
7.19 Package detailed description field 45
7.19.1 Description 45
7.19.2 Intent 46
7.19.3 Examples 46
7.20 Package comment field 46
7.20.1 Description 46
7.20.2 Intent 47
7.20.3 Examples 47
7.21 External reference field 47
7.21.1 Description 47
7.21.2 Intent 48
7.21.3 Examples 48
7.22 External reference comment field 49
7.22.1 Description 49
7.22.2 Intent 49
7.22.3 Examples 50
7.23 Package attribution text field 50
7.23.1 Description 50
7.23.2 Intent 51
7.23.3 Examples 51

8 File information section 51
8.1 File name field 51
8.1.1 Description 51
8.1.2 Intent 52
8.1.3 Examples 52

8.2 File SPDX identifier field 52
8.2.1 Description 52
8.2.2 Intent 52
8.2.3 Examples 52
8.3 File type field 53
8.3.1 Description 53
8.3.2 Intent 54
8.3.3 Examples 54
8.4 File checksum field 54
8.4.1 Description 54
8.4.2 Intent 55
8.4.3 Examples 55
8.5 Concluded license field 56
8.5.1 Description 56
8.5.2 Intent 56
8.5.3 Examples 56
8.6 License information in file field 57
8.6.1 Description 57
8.6.2 Intent 58
8.6.3 Examples 58
8.7 Comments on license field 58
8.7.1 Description 58
8.7.2 Intent 59
8.7.3 Examples 59
8.8 Copyright text field 59
8.8.1 Description 59
8.8.2 Intent 60
8.8.3 Examples 60
8.9 Artifact of project name field (deprecated) 60
8.9.1 Description 60
8.9.2 Intent 61
8.9.3 Examples 61
8.10 Artifact of project homepage field (deprecated) 61
8.10.1 Description 61
8.10.2 Intent 61
8.10.3 Examples 61
8.11 Artifact of project uniform resource identifier field (deprecated) 62
8.11.1 Description 62
8.11.2 Intent 62
8.11.3 Examples 62
8.12 File comment field 63
8.12.1 Description 63
8.12.2 Intent 63
8.12.3 Examples 63
8.13 File notice field 63
8.13.1 Description 63
8.13.2 Intent 64
8.13.3 Examples 64
8.14 File contributor field 64
8.14.1 Description 64
8.14.2 Intent 64
8.14.3 Examples 65
8.15 File attribution text field 65
8.15.1 Description 65
8.15.2 Intent 65
8.15.3 Examples 66
8.16 File dependencies field (deprecated) 66
8.16.1 Description 66
8.16.2 Intent 66
8.16.3 Examples 67

9 Snippet information section 67

9.1 Snippet SPDX identifier field 67
9.1.1 Description 67
9.1.2 Intent 68
9.1.3 Examples 68
9.2 Snippet from file SPDX identifier field 68
9.2.1 Description 68
9.2.2 Intent 69
9.2.3 Examples 69
9.3 Snippet byte range field 70
9.3.1 Description 70
9.3.2 Intent 70
9.3.3 Examples 70
9.4 Snippet line range field 71
9.4.1 Description 71
9.4.2 Intent 71
9.4.3 Examples 71
9.5 Snippet concluded license field 72
9.5.1 Description 72
9.5.2 Intent 73
9.5.3 Examples 73
9.6 License information in snippet field 74
9.6.1 Description 74
9.6.2 Intent 75
9.6.3 Examples 75
9.7 Snippet comments on license field 75
9.7.1 Description 75
9.7.2 Intent 75
9.7.3 Examples 75
9.8 Snippet copyright text field 76
9.8.1 Description 76
9.8.2 Intent 76
9.8.3 Examples 76
9.9 Snippet comment field 77
9.9.1 Description 77
9.9.2 Intent 77
9.9.3 Examples 77
9.10 Snippet name field 78
9.10.1 Description 78
9.10.2 Intent 78
9.10.3 Examples 78
9.11 Snippet attribution text field 78
9.11.1 Description 78
9.11.2 Intent 79
9.11.3 Examples 79

10 Other licensing information detected section 79
10.1 License identifier field 79
10.1.1 Description 79
10.1.2 Intent 80
10.1.3 Examples 80
10.2 Extracted text field 80
10.2.1 Description 80
10.2.2 Intent 81
10.2.3 Examples 81
10.3 License name field 82
10.3.1 Description 82
10.3.2 Intent 82
10.3.3 Examples 82
10.4 License cross reference field 82
10.4.1 Description 82
10.4.2 Intent 83
10.4.3 Examples 83

10.5 License comment field 83
10.5.1 Description 83
10.5.2 Intent 83
10.5.3 Examples 83

11 Relationships between SPDX elements information section 84
11.1 Relationship field 84
11.1.1 Description 84
11.1.2 Intent 89
11.1.3 Examples 89
11.2 Relationship comment field 90
11.2.1 Description 90
11.2.2 Intent 90
11.2.3 Examples 90

12 Annotations information section 91
12.1 Annotator field 91
12.1.1 Description 91
12.1.2 Intent 91
12.1.3 Examples 91
12.2 Annotation date field 92
12.2.1 Description 92
12.2.2 Intent 92
12.2.3 Examples 92
12.3 Annotation type field 93
12.3.1 Description 93
12.3.2 Intent 93
12.3.3 Examples 93
12.4 SPDX identifier reference field 93
12.4.1 Description 93
12.4.2 Intent 94
12.4.3 Examples 94
12.5 Annotation comment field 94
12.5.1 Description 94
12.5.2 Intent 95
12.5.3 Examples 95

13 Review information section (deprecated) 95
13.1 Reviewer field (deprecated) 95
13.1.1 Description 95
13.1.2 Intent 96
13.1.3 Examples 96
13.2 Review date field (deprecated) 96
13.2.1 Description 96
13.2.2 Intent 97
13.2.3 Examples 97
13.3 Review comment field (deprecated) 97
13.3.1 Description 97
13.3.2 Intent 98
13.3.3 Examples 98

Annex A (Informative) SPDX license list 99

A.1 Licenses with short identifiers 99
A.2 Exceptions list 114
A.3 Deprecated licenses 116

Annex B (Informative) License matching guidelines and templates 118

B.1 SPDX license list matching guidelines 118
B.2 How these guidelines are applied 118
B.2.1 Purpose 118

B.2.2 Guideline: official license headers 118
B.3 Substantive text 118
B.3.1 Purpose 118
B.3.2 Guideline: verbatim text 118
B.3.3 Guideline: no additional text 119
B.3.4 Guideline: replaceable text 119
B.3.5 Guideline: omittable text 119
B.4 Whitespace 119
B.4.1 Purpose 119
B.4.2 Guideline 119
B.5 Capitalization 119
B.5.1 Purpose 119
B.5.2 Guideline 120
B.6 Punctuation 120
B.6.1 Purpose 120
B.6.2 Guideline: punctuation 120
B.6.3 Guideline: hyphens, dashes 120
B.6.4 Guideline: quotes 120
B.7 Code comment indicators 120
B.7.1 Purpose 120
B.7.2 Guideline 120
B.8 Bullets and numbering 120
B.8.1 Purpose 120
B.8.2 Guideline 121
B.9 Varietal word spelling 121
B.9.1 Purpose 121
B.9.2 Guideline 121
B.10 Copyright symbol 121
B.10.1 Purpose 121
B.10.2 Guideline 121
B.11 Copyright notice 121
B.11.1 Purpose 121
B.11.2 Guideline 122
B.12 License name or title 122
B.12.1 Purpose 122
B.12.2 Guideline 122
B.13 Extraneous text at the end of a license 122
B.13.1 Purpose 122
B.13.2 Guideline 122
B.14 HTTP protocol 122
B.14.1 Purpose 122
B.14.2 Guideline 122
B.15 SPDX license list 123
B.15.1 Template access 123
B.15.2 Template format 123

Annex C (Normative) RDF object model and identifier syntax 124

C.1 Introduction 124
C.2 Agent and tool identifiers 125

Annex D (Normative) SPDX license expressions 126

D.1 Overview 126
D.2 Case sensitivity 127
D.3 Simple license expressions 127
D.4 Composite license expressions 127
D.4.1 Introduction 127
D.4.2 Disjunctive "OR" Operator 128
D.4.3 Conjunctive "AND" Operator 128
D.4.4 Exception "WITH" Operator 128
D.4.5 Order of precedence and parentheses 129

D.4.6 License expressions in RDF 129

Annex E (Informative) Using SPDX license list short identifiers in source files 131

E.1 Introduction 131
E.2 Format for SPDX-License-Identifier 131
E.3 Representing single license 132
E.4 Representing multiple licenses 132

Annex F (Normative) External repository identifiers 134

F.1 Introduction 134
F.2 Security 134
F.2.1 cpe22Type 134
F.2.2 cpe23Type 134
F.3 Package-Manager 135
F.3.1 maven-central 135
F.3.2 npm 135
F.3.3 nuget 135
F.3.4 bower 136
F.3.5 purl 136
F.4 Persistent-Id 136
F.4.1 swh 136
F.5 Other 137
F.5.1 [idstring] 137

Annex G (Normative) SPDX Lite 138

G.1 Explanation of SPDX Lite 138
G.2 Format of SPDX Lite 138
G.3 Table of SPDX Lite fields 138

Annex H (Informative) SPDX file tags 140

H.1 Rationale 140
H.2 Format 140
H.3 Caveats 141

Annex I (Informative) Differences from previous editions 142

I.1 Differences between V2.2.1 and V2.2 142
I.2 Differences from V2.2 and V2.1 143
I.3 Differences between V2.1 and V2.0 143
I.4 Differences between V2.0 and V1.2 144

Bibliography 145