

This is a preview of "BS ISO/IEC 5962:2021". [Click here to purchase the full version from the ANSI store.](#)



BSI Standards Publication

## Information technology — SPDX® Specification V2.2.1

---

This is a preview of "BS ISO/IEC 5962:2021". [Click here to purchase the full version from the ANSI store.](#)

## National foreword

This British Standard is the UK implementation of ISO/IEC 5962:2021.

The UK participation in its preparation was entrusted to Technical Committee ICT/1, Information systems co-ordination.

A list of organizations represented on this committee can be obtained on request to its committee manager.

### Contractual and legal considerations

This publication has been prepared in good faith, however no representation, warranty, assurance or undertaking (express or implied) is or will be made, and no responsibility or liability is or will be accepted by BSI in relation to the adequacy, accuracy, completeness or reasonableness of this publication. All and any such responsibility and liability is expressly disclaimed to the full extent permitted by the law.

This publication is provided as is, and is to be used at the recipient's own risk.

The recipient is advised to consider seeking professional guidance with respect to its use of this publication.

This publication is not intended to constitute a contract. Users are responsible for its correct application.

© The British Standards Institution 2021  
Published by BSI Standards Limited 2021

ISBN 978 0 539 15700 0

ICS 35.080

### Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 August 2021.

### Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

---

This is a preview of "BS ISO/IEC 5962:2021". [Click here to purchase the full version from the ANSI store.](#)

First edition  
2021-08

---

---

# Information technology — SPDX® Specification V2.2.1

*Technologies de l'information — Spécification SPDX® V2.2.1*



Reference number  
ISO/IEC 5962:2021(E)

© ISO/IEC 2021

This is a preview of "BS ISO/IEC 5962:2021". Click here to purchase the full version from the ANSI store.



## **COPYRIGHT PROTECTED DOCUMENT**

© ISO/IEC 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier; Geneva  
Phone: +41 22 749 01 11  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

This is a preview of "BS ISO/IEC 5962:2021". [Click here to purchase the full version from the ANSI store.](#)

## Contents

Foreword.....	xiii
Introduction.....	xiii
<b>1 Scope.....</b>	<b>1</b>
<b>2 Normative references.....</b>	<b>1</b>
<b>3 Terms and definitions.....</b>	<b>2</b>
<b>4 Conformance.....</b>	<b>3</b>
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
<b>5 Composition of an SPDX document.....</b>	<b>6</b>
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
<b>6 SPDX document creation information section.....</b>	<b>10</b>
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

This is a preview of "BS ISO/IEC 5962:2021". Click here to purchase the full version from the ANSI store.

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

This is a preview of "BS ISO/IEC 5962:2021". Click here to purchase the full version from the ANSI store.

<b>7.9 Package verification code field .....</b>	<b>33</b>
7.9.1 Description.....	33
7.9.2 Intent.....	34
7.9.3 Examples.....	34
<b>7.10 Package checksum field .....</b>	<b>35</b>
7.10.1 Description.....	35
7.10.2 Intent.....	35
7.10.3 Examples.....	35
<b>7.11 Package home page field.....</b>	<b>36</b>
7.11.1 Description.....	36
7.11.2 Intent.....	37
7.11.3 Examples.....	37
<b>7.12 Source information field .....</b>	<b>37</b>
7.12.1 Description.....	37
7.12.2 Intent.....	38
7.12.3 Examples.....	38
<b>7.13 Concluded license field.....</b>	<b>38</b>
7.13.1 Description.....	38
7.13.2 Intent.....	39
7.13.3 Examples.....	39
<b>7.14 All licenses information from files field .....</b>	<b>40</b>
7.14.1 Description.....	40
7.14.2 Intent.....	40
7.14.3 Examples.....	41
<b>7.15 Declared license field.....</b>	<b>41</b>
7.15.1 Description.....	41
7.15.2 Intent.....	42
7.15.3 Examples.....	42
<b>7.16 Comments on license field.....</b>	<b>43</b>
7.16.1 Description.....	43
7.16.2 Intent.....	43
7.16.3 Examples.....	43
<b>7.17 Copyright text field.....</b>	<b>44</b>
7.17.1 Description.....	44
7.17.2 Intent.....	44
7.17.3 Examples.....	44
<b>7.18 Package summary description field .....</b>	<b>45</b>
7.18.1 Description.....	45
7.18.2 Intent.....	45
7.18.3 Examples.....	45
<b>7.19 Package detailed description field.....</b>	<b>45</b>
7.19.1 Description.....	45
7.19.2 Intent.....	46
7.19.3 Examples.....	46
<b>7.20 Package comment field.....</b>	<b>46</b>
7.20.1 Description.....	46
7.20.2 Intent.....	47
7.20.3 Examples.....	47
<b>7.21 External reference field.....</b>	<b>47</b>
7.21.1 Description.....	47
7.21.2 Intent.....	48
7.21.3 Examples.....	48
<b>7.22 External reference comment field.....</b>	<b>49</b>
7.22.1 Description.....	49

This is a preview of "BS ISO/IEC 5962:2021". [Click here to purchase the full version from the ANSI store.](#)

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



This is a preview of "BS ISO/IEC 5962:2021". Click here to purchase the full version from the ANSI store.

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

This is a preview of "BS ISO/IEC 5962:2021". [Click here to purchase the full version from the ANSI store.](#)

<b>9.10</b>	<b>Snippet name field</b>	<b>78</b>
9.10.1	Description	78
9.10.2	Intent	78
9.10.3	Examples	78
<b>9.11</b>	<b>Snippet attribution text field</b>	<b>78</b>
9.11.1	Description	78
9.11.2	Intent	79
9.11.3	Examples	79
<b>10</b>	<b>Other licensing information detected section</b>	<b>79</b>
<b>10.1</b>	<b>License identifier field</b>	<b>79</b>
10.1.1	Description	79
10.1.2	Intent	80
10.1.3	Examples	80
<b>10.2</b>	<b>Extracted text field</b>	<b>80</b>
10.2.1	Description	80
10.2.2	Intent	81
10.2.3	Examples	81
<b>10.3</b>	<b>License name field</b>	<b>82</b>
10.3.1	Description	82
10.3.2	Intent	82
10.3.3	Examples	82
<b>10.4</b>	<b>License cross reference field</b>	<b>82</b>
10.4.1	Description	82
10.4.2	Intent	83
10.4.3	Examples	83
<b>10.5</b>	<b>License comment field</b>	<b>83</b>
10.5.1	Description	83
10.5.2	Intent	83
10.5.3	Examples	83
<b>11</b>	<b>Relationships between SPDX elements information section</b>	<b>84</b>
<b>11.1</b>	<b>Relationship field</b>	<b>84</b>
11.1.1	Description	84
11.1.2	Intent	89
11.1.3	Examples	89
<b>11.2</b>	<b>Relationship comment field</b>	<b>90</b>
11.2.1	Description	90
11.2.2	Intent	90
11.2.3	Examples	90
<b>12</b>	<b>Annotations information section</b>	<b>91</b>
<b>12.1</b>	<b>Annotator field</b>	<b>91</b>
12.1.1	Description	91
12.1.2	Intent	91
12.1.3	Examples	91
<b>12.2</b>	<b>Annotation date field</b>	<b>92</b>
12.2.1	Description	92
12.2.2	Intent	92
12.2.3	Examples	92
<b>12.3</b>	<b>Annotation type field</b>	<b>93</b>
12.3.1	Description	93
12.3.2	Intent	93
12.3.3	Examples	93
<b>12.4</b>	<b>SPDX identifier reference field</b>	<b>93</b>
12.4.1	Description	93

This is a preview of "BS ISO/IEC 5962:2021". [Click here to purchase the full version from the ANSI store.](#)

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: omissible 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

This is a preview of "BS ISO/IEC 5962:2021". [Click here to purchase the full version from the ANSI store.](#)

<b>B.6.2</b>	<b>Guideline: punctuation</b>	<b>120</b>
<b>B.6.3</b>	<b>Guideline: hyphens, dashes</b>	<b>120</b>
<b>B.6.4</b>	<b>Guideline: quotes</b>	<b>120</b>
<b>B.7</b>	<b>Code comment indicators</b>	<b>120</b>
<b>B.7.1</b>	<b>Purpose</b>	<b>120</b>
<b>B.7.2</b>	<b>Guideline</b>	<b>120</b>
<b>B.8</b>	<b>Bullets and numbering</b>	<b>120</b>
<b>B.8.1</b>	<b>Purpose</b>	<b>120</b>
<b>B.8.2</b>	<b>Guideline</b>	<b>121</b>
<b>B.9</b>	<b>Varietal word spelling</b>	<b>121</b>
<b>B.9.1</b>	<b>Purpose</b>	<b>121</b>
<b>B.9.2</b>	<b>Guideline</b>	<b>121</b>
<b>B.10</b>	<b>Copyright symbol</b>	<b>121</b>
<b>B.10.1</b>	<b>Purpose</b>	<b>121</b>
<b>B.10.2</b>	<b>Guideline</b>	<b>121</b>
<b>B.11</b>	<b>Copyright notice</b>	<b>121</b>
<b>B.11.1</b>	<b>Purpose</b>	<b>121</b>
<b>B.11.2</b>	<b>Guideline</b>	<b>122</b>
<b>B.12</b>	<b>License name or title</b>	<b>122</b>
<b>B.12.1</b>	<b>Purpose</b>	<b>122</b>
<b>B.12.2</b>	<b>Guideline</b>	<b>122</b>
<b>B.13</b>	<b>Extraneous text at the end of a license</b>	<b>122</b>
<b>B.13.1</b>	<b>Purpose</b>	<b>122</b>
<b>B.13.2</b>	<b>Guideline</b>	<b>122</b>
<b>B.14</b>	<b>HTTP protocol</b>	<b>122</b>
<b>B.14.1</b>	<b>Purpose</b>	<b>122</b>
<b>B.14.2</b>	<b>Guideline</b>	<b>122</b>
<b>B.15</b>	<b>SPDX license list</b>	<b>123</b>
<b>B.15.1</b>	<b>Template access</b>	<b>123</b>
<b>B.15.2</b>	<b>Template format</b>	<b>123</b>
<b>Annex C (Normative) RDF object model and identifier syntax</b>		<b>124</b>
<b>C.1</b>	<b>Introduction</b>	<b>124</b>
<b>C.2</b>	<b>Agent and tool identifiers</b>	<b>125</b>
<b>Annex D (Normative) SPDX license expressions</b>		<b>126</b>
<b>D.1</b>	<b>Overview</b>	<b>126</b>
<b>D.2</b>	<b>Case sensitivity</b>	<b>127</b>
<b>D.3</b>	<b>Simple license expressions</b>	<b>127</b>

This is a preview of "BS ISO/IEC 5962:2021". Click here to purchase the full version from the ANSI store.

<b>D.4 Composite license expressions</b> .....	<b>127</b>
<b>D.4.1 Introduction</b> .....	<b>127</b>
<b>D.4.2 Disjunctive "OR" Operator</b> .....	<b>128</b>
<b>D.4.3 Conjunctive "AND" Operator</b> .....	<b>128</b>
<b>D.4.4 Exception "WITH" Operator</b> .....	<b>128</b>
<b>D.4.5 Order of precedence and parentheses</b> .....	<b>129</b>
<b>D.4.6 License expressions in RDF</b> .....	<b>129</b>
<b>Annex E (Informative) Using SPDX license list short identifiers in source files</b> .....	<b>131</b>
<b>E.1 Introduction</b> .....	<b>131</b>
<b>E.2 Format for SPDX-License-Identifier</b> .....	<b>131</b>
<b>E.3 Representing single license</b> .....	<b>132</b>
<b>E.4 Representing multiple licenses</b> .....	<b>132</b>
<b>Annex F (Normative) External repository identifiers</b> .....	<b>134</b>
<b>F.1 Introduction</b> .....	<b>134</b>
<b>F.2 Security</b> .....	<b>134</b>
<b>F.2.1 cpe22Type</b> .....	<b>134</b>
<b>F.2.2 cpe23Type</b> .....	<b>134</b>
<b>F.3 Package-Manager</b> .....	<b>135</b>
<b>F.3.1 maven-central</b> .....	<b>135</b>
<b>F.3.2 npm</b> .....	<b>135</b>
<b>F.3.3 nuget</b> .....	<b>135</b>
<b>F.3.4 bower</b> .....	<b>136</b>
<b>F.3.5 purl</b> .....	<b>136</b>
<b>F.4 Persistent-Id</b> .....	<b>136</b>
<b>F.4.1 swb</b> .....	<b>136</b>
<b>F.5 Other</b> .....	<b>137</b>
<b>F.5.1 [idstring]</b> .....	<b>137</b>
<b>Annex G (Normative) SPDX Lite</b> .....	<b>138</b>
<b>G.1 Explanation of SPDX Lite</b> .....	<b>138</b>
<b>G.2 Format of SPDX Lite</b> .....	<b>138</b>
<b>G.3 Table of SPDX Lite fields</b> .....	<b>138</b>
<b>Annex H (Informative) SPDX file tags</b> .....	<b>140</b>
<b>H.1 Rationale</b> .....	<b>140</b>
<b>H.2 Format</b> .....	<b>140</b>
<b>H.3 Caveats</b> .....	<b>141</b>
<b>Annex I (Informative) Differences from previous editions</b> .....	<b>142</b>
<b>I.1 Differences between V2.2.1 and V2.2</b> .....	<b>142</b>

This is a preview of "BS ISO/IEC 5962:2021". [Click here to purchase the full version from the ANSI store.](#)

<b>I.2 Differences from V2.2 and V2.1 .....</b>	<b>143</b>
<b>I.3 Differences between V2.1 and V2.0 .....</b>	<b>143</b>
<b>I.4 Differences between V2.0 and V1.2 .....</b>	<b>144</b>
<b>Bibliography.....</b>	<b>145</b>

This is a preview of "BS ISO/IEC 5962:2021". Click here to purchase the full version from the ANSI store.

## Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted (see [www.iso.org/directives](http://www.iso.org/directives) or [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)) or the IEC list of patent declarations received (see [patents.iec.ch](http://patents.iec.ch)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html). In the IEC, see [www.iec.ch/understanding-standards](http://www.iec.ch/understanding-standards).

This document was prepared by the Joint Development Foundation (JDF) (as SPDX® Specification V2.2.1) and drafted in accordance with its editorial rules. It was adopted, under the JTC 1 PAS procedure, by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html) and [www.iec.ch/national-committees](http://www.iec.ch/national-committees).

## Introduction

Companies and organizations (collectively “Organizations”) are widely using and reusing open source and other software packages. Accurate identification of software is key for many supply chain processes. Vulnerability remediation starts with knowing the details of which version of software is in use on a system. Compliance with the associated licenses requires a set of analysis activities and due diligence that each Organization performs independently, which may include a manual and/or automated scan of software and identification of associated licenses followed by manual verification. Software development teams across the globe use the same open source packages, but little infrastructure exists to facilitate collaboration on the analysis or share the results of these analysis activities. As a result, many groups are performing the same work leading to duplicated efforts and redundant information. With this document, the SPDX workgroup has created a data exchange format so that information about software packages and related content may be collected and shared in a common format with the goal of saving time and improving data accuracy.



This is a preview of "BS ISO/IEC 5962:2021". Click here to purchase the full version from the ANSI store.

# Information technology — SPDX® Specification V2.2.1

## 1 Scope

This Software Package Data Exchange® (SPDX®) specification defines a standard data format for communicating the component and metadata information associated with software packages. An SPDX document can be associated with a set of software packages, files or snippets and contains information about the software in the SPDX format described in this specification.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

*Apache Maven*, Apache Software Foundation, <https://maven.apache.org/>

*Bower API*, <https://bower.io/docs/api/#install>

*Common Platform Enumeration (CPE) – Specification*, The MITRE Corporation,

[https://cpe.mitre.org/files/cpe-specification\\_2.2.pdf](https://cpe.mitre.org/files/cpe-specification_2.2.pdf)

*NISTIR 7695, Common Platform Enumeration: Naming Specification Version 2.3*, NIST,

<https://csrc.nist.gov/publications/detail/nistir/7695/final>

*npm-package.json*, npm Inc., <https://docs.npmjs.com/files/package.json>

*NuGet documentation*, Microsoft, <https://docs.microsoft.com/en-us/nuget/>

*POSIX.1-2017 The Open Group Base Specifications Issue 7*, 2018 edition, IEEE/Open Group,

<https://pubs.opengroup.org/onlinepubs/9699919799/>

*purl (package URL)*, <https://github.com/package-url/purl-spec>

*Resource Description Framework (RDF)*, 2014-02-25, W3C, <http://www.w3.org/standards/techs/rdf>

*RFC-1321, The MD5 Message-Digest Algorithm*, The Internet Society Network Working Group,

<https://tools.ietf.org/html/rfc1321>

*RFC-3174, US Secure Hash Algorithm 1 (SHA1)*, The Internet Society Network Working Group,

<https://tools.ietf.org/html/rfc3174>

*RFC-3986, Uniform Resource Identifier (URI): Generic Syntax*, The Internet Society Network Working Group,

<https://tools.ietf.org/html/rfc3986>

*RFC-5234, Augmented BNF for Syntax Specifications: ABNF*, The Internet Society Network Working Group,

<https://tools.ietf.org/html/rfc5234>

*RFC-6234, US Secure Hash Algorithms (SHA and SHA-based HMAC and HKDF)*, The Internet Society Network Working Group,

<https://tools.ietf.org/html/rfc6234>

*SoftWare Heritage persistent IDentifiers (SWHIDs)*, <https://docs.softwareheritage.org/devel/swh-model/persistent-identifiers.html>

*SPDX and RDF Ontology*, <http://spdx.org/rdf/ontology/spdx-2-2>

*SPDX License list*, Linux Foundation, <https://spdx.org/licenses/>

*SPDX License Exceptions list*, Linux Foundation, <https://spdx.org/licenses/exceptions-index.html>