

# ISO/IEC 19785-3:2025-07 (E)

## Information technology - Common Biometric Exchange Formats Framework - Part 3: Patron format specifications

---

<b>Contents</b>		<b>Page</b>
	<b>Foreword</b> .....	<b>viii</b>
	<b>Introduction</b> .....	<b>ix</b>
<b>1</b>	<b>Scope</b> .....	<b>1</b>
<b>2</b>	<b>Normative references</b> .....	<b>1</b>
<b>3</b>	<b>Terms and definitions</b> .....	<b>1</b>
<b>4</b>	<b>Symbols and abbreviated terms</b> .....	<b>2</b>
<b>5</b>	<b>Conformance</b> .....	<b>2</b>
<b>6</b>	<b>ASN.1 type definitions for CBEFF data elements and abstract values</b> .....	<b>3</b>
6.1	General.....	3
6.2	CBEFF data elements type definitions module.....	3
<b>7</b>	<b>Patron format specification: Simple bit-oriented patron format (deprecated)</b> .....	<b>8</b>
7.1	Patron.....	8
7.2	Patron format owner.....	8
7.3	Patron format name.....	8
7.4	Patron format type.....	8
7.5	ASN.1 OID for this patron format.....	8
7.6	Domain of use.....	8
7.7	Version identifier.....	9
7.8	CBEFF version.....	9
7.9	General.....	9
7.10	ASN.1 Specification.....	9
<b>8</b>	<b>Patron format specification: Simple byte-oriented patron format</b> .....	<b>10</b>
8.1	Patron.....	10
8.2	Patron format owner.....	10
8.3	Patron format name.....	10
8.4	Patron format type.....	10
8.5	ASN.1 OID for this patron format.....	10
8.6	Domain of use.....	10
8.7	Version identifier.....	10
8.8	CBEFF version.....	10
8.9	General.....	10
8.10	Patron format specification.....	11
8.11	ASN.1 Specification.....	11
<b>9</b>	<b>Patron format specification: Presence byte-oriented patron format</b> .....	<b>11</b>
9.1	Patron.....	11
9.2	Patron format owner.....	11
9.3	Patron format name.....	12
9.4	Patron format type.....	12
9.5	ASN.1 OID for this patron format.....	12
9.6	Domain of use.....	12
9.7	Version identifier.....	12
9.8	CBEFF version.....	12
9.9	General.....	12
9.10	Specification.....	12
9.11	ASN.1 Specification.....	14

<b>10</b>	<b>Patron format specification: Presence bit-oriented patron format</b>	<b>15</b>
10.1	Patron	15
10.2	Patron format owner	15
10.3	Patron format name	15
10.4	Patron format type	15
10.5	ASN.1 OID for this patron format	15
10.6	Domain of use	16
10.7	Version identifier	16
10.8	CBEFF version	16
10.9	General	16
10.10	ASN.1 Specification	16
<b>11</b>	<b>Patron format specification: TLV-encoded patron format, for use with smartcards or other tokens (with implicit tag allocation authority) - deprecated</b>	<b>17</b>
11.1	Patron	17
11.2	Patron format owner	18
11.3	Patron format name	18
11.4	Patron format type	18
11.5	ASN.1 OID for this patron format	18
11.6	Domain of Use	18
11.7	Version identifier	18
11.8	CBEFF version	18
11.9	General	18
11.10	ASN.1 specification	21
11.11	Tabular representations	22
11.11.1	The Biometric Information Template used for on-card biometric comparison	22
11.11.2	The Biometric Information Template used for off-card biometric comparison	24
11.12	The Biometric Information Template Group Data Object	25
11.13	Abstract values and encodings for biometric type and subtype	25
11.14	Patron format conformance statement	26
11.14.1	Identifying information	26
11.14.2	CBEFF-defined data elements and abstract values	26
11.14.3	Patron-defined data elements and abstract values	27
<b>12</b>	<b>Patron format specification: Complex patron format</b>	<b>27</b>
12.1	Patron	27
12.2	Patron format owner	27
12.3	Patron format name	27
12.4	Patron format type	27
12.5	ASN.1 OID for this patron format	27
12.6	Domain of use	27
12.7	Version identifier	28
12.8	CBEFF version	28
12.9	General	28
12.10	Specification	28
12.11	Illustrative examples	32
12.12	ASN.1 definition (provided for illustrative purposes only)	35
<b>13</b>	<b>Patron format specification: XML-full patron format (with additional data elements)</b>	<b>36</b>
13.1	Patron	36
13.2	Patron format owner	36
13.3	Patron format name	36
13.4	Patron format type	36
13.5	ASN.1 OID for this patron format	36
13.6	Domain of use	37
13.7	Version identifier	37
13.8	CBEFF version	37
13.9	General	37
13.10	Specification	37
13.11	Element <BIR>	38
13.11.1	Syntax	38
13.11.2	Semantics	39
13.12	Element <Version>	39

13.12.1	Syntax	39
13.12.2	Semantics	40
13.13	Element <CBEFFVersion>	40
13.13.1	Syntax	40
13.13.2	Semantics	40
13.14	Element <BIRInfo>	41
13.14.1	Syntax	41
13.14.2	Semantics	41
13.15	Element <BDBInfo>	42
13.15.1	Syntax	42
13.15.2	Semantics	43
13.16	Element <Format> of BDBInfoType	47
13.16.1	Syntax	47
13.16.2	Semantics	47
13.17	Element <Product>	48
13.17.1	Syntax	48
13.17.2	Semantics	48
13.18	Element <CaptureDevice>	48
13.18.1	Syntax	48
13.18.2	Semantics	48
13.19	Element <FeatureExtractionAlgorithm>	48
13.19.1	Syntax	48
13.19.2	Semantics	49
13.20	Element <ComparisonAlgorithm>	49
13.20.1	Syntax	49
13.20.2	Semantics	49
13.21	Element <CompressionAlgorithm>	49
13.21.1	Syntax	49
13.21.2	Semantics	49
13.22	Element <Quality>	50
13.22.1	Syntax	50
13.22.2	Semantics	50
13.23	Element <Algorithm>	50
13.23.1	Syntax	50
13.23.2	Semantics	50
13.24	Element <SBInfo>	50
13.24.1	Syntax	50
13.24.2	Semantics	51
13.25	Element <Format> of SBInfoType	51
13.25.1	Syntax	51
13.25.2	Semantics	51
13.26	Representation of Integers	51
13.27	Representation of Octet Strings	51
13.28	Representation of Date and Time of the Day	52
13.29	Representation of Universally Unique Identifiers	52
13.30	XML schema of the patron format	53
13.31	An example of a simple BIR in XML encoding (conforming with the ASN.1 schema, the XSD schema, and the normative textual description)	56
13.32	An example of a complex BIR in XML encoding (conforming with the ASN.1 schema, the XSD schema, and the normative textual description)	57
<b>14</b>	<b>Patron format specification: full-complex patron format</b>	<b>60</b>
14.1	Patron	60
14.2	Patron format owner	60
14.3	Patron format name	60
14.4	Patron format type	60
14.5	ASN.1 OID for this patron format	60
14.6	Domain of use	60
14.7	Version identifier	60
14.8	CBEFF version	61
14.9	General	61
14.10	Specification	61

14.11	Illustrative examples .....	67
14.12	ASN.1 definition (provided for illustrative purposes only) .....	70
<b>15</b>	<b>Patron format specification: Biometric application programming interface (BioAPI 2.0) .....</b>	<b>71</b>
<b>16</b>	<b>Patron format specification: Self-identifying Tag-oriented Simple BIR .....</b>	<b>71</b>
16.1	Patron .....	71
16.2	Patron format owner .....	71
16.3	Patron format name .....	71
16.4	Patron format type .....	71
16.5	ASN.1 OID for this patron format .....	71
16.6	Domain of use .....	72
16.7	Version identifier .....	72
16.8	CBEFF version .....	72
16.9	General .....	72
16.10	Specification .....	73
16.11	Illustrative examples .....	77
16.12	ASN.1 definition .....	77
<b>17</b>	<b>Patron format specification: Self-identifying, Tag-oriented Complex BIR .....</b>	<b>81</b>
17.1	Patron .....	81
17.2	Patron format owner .....	81
17.3	Patron format name .....	81
17.4	Patron format type .....	81
17.5	ASN.1 OID for this patron format .....	82
17.6	Domain of use .....	82
17.7	Version identifier .....	82
17.8	CBEFF version .....	82
17.9	General .....	82
17.10	Specification .....	83
17.11	Illustrative example .....	84
17.12	ASN.1 definition .....	84
<b>18</b>	<b>Patron format specification: PAD patron format (Linking BDB with PAD Sample) .....</b>	<b>86</b>
18.1	Patron .....	86
18.2	Patron format owner .....	87
18.3	Patron format name .....	87
18.4	Patron format type .....	87
18.5	ASN.1 OID for this patron format .....	87
18.6	Domain of use .....	87
18.7	Version identifier .....	87
18.8	CBEFF version .....	87
18.9	General .....	87
18.10	Specification .....	88
18.11	Illustrative example .....	89
18.12	ASN.1 definition .....	90
<b>19</b>	<b>Patron format specification: TLV-encoded patron format for ICCs and other tokens (with explicit tag allocation authority) .....</b>	<b>92</b>
19.1	Patron .....	92
19.2	Patron format owner .....	93
19.3	Patron format name .....	93
19.4	Patron format type .....	93
19.5	ASN.1 OID for this patron format .....	93
19.6	Domain of Use .....	93
19.7	Version identifier .....	93
19.8	CBEFF version .....	93
19.9	General .....	93
19.10	Tabular representations for information .....	95
	19.10.1 The Biometric Information Template used for on-card biometric comparison .....	95
	19.10.2 The Biometric Information Template used for off-card biometric comparison .....	98
19.11	The Biometric Information Template Group Data Object .....	101
19.12	Abstract values and encodings for biometric type and subtype .....	101
19.13	Illustrative examples .....	101

**Annex A** (informative) **Guidelines on the specification of patron formats** ..... 102  
**Annex B** (informative) **Conformance of the defined patron formats**..... 106  
**Annex C** (informative) **Coding specifications for tagged patron formats**..... 116  
**Annex D** (informative) **Information and clarifications to [Clause 11](#)**..... 131  
**Annex E** (informative) **Sample ASN.1 Module for TLV-encoded patron formats for ICCs and other tokens (with explicit tag allocation authority)** ..... 135  
**Bibliography**..... 142