



**International
Standard**

ISO/IEC 20248

**Information technology —
Automatic identification and data
capture techniques — Digital
signature data structure schema**

**AMENDMENT 1: Domain authority
identifier (DAID) specification for
the GS1 legal entity identifier and
encoding clarifications**

**Second edition
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**AMENDMENT 1
2024-10**



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This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 31, *Automatic identification and data capture techniques*.

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Clause 2, Normative references

Add the reference:

STANDARDSISO.COM : Click to view the full PDF of ISO/IEC 20248:2022/Amd 1:2024

Information technology — Automatic identification and data capture techniques — Digital signature data structure schema

AMENDMENT 1: Domain authority identifier (DAID) specification for the GS1 legal entity identifier and encoding clarifications

GS1 General Specifications Standard

7.5.3

Replace the entire subclause with:

7.5.3 DAID for GS1 legal entity(ies)

GS1 General Specifications Standard shall be used to specify the GS1 Party Global Location Number (PGLN), corresponding to GS1 Application Identifier (417), as the GS1 identifier for legal entity(ies).

The DAID shall be "GS1 <PGLN>". The PGLN is a 13-character base 10 (digits 0 to 9) number.

The DAID for GS1 shall be encoded as follows:

- DAID encoding type identifier: 0xFE.
- PGLN encoding: 44-bit binary number.

EXAMPLE The PGLN 9506000151540 is the DAID "GS1 9506000151540" encoded as ":FE:8A549C323F4".

8.2.3

Delete the second bullet: "Empty fields and arrays shall be pruned."

Replace the forth bullet

Base64 shall be in the format when encoded from the binary; it shall contain the padding characters.

with:

The binary value presentations shall be as follows: bstring uses HexString, digsigenv uses Base64String and privatecontainer uses HexString.

8.10.2

Replace the third paragraph

The language tag shall be constructed in accordance with IETF RFC 5646. The use of ISO 639-1, 2-character language tag is compulsory. The IETF RFC 5646 sub-tags are optional.

with:

The language tag shall be constructed in accordance with IETF RFC 5646. The language subtag is compulsory. The other sub-tags are optional.

B.4.6, fourth paragraph

Add the following sentence at the end of the paragraph:

The following example FP256BNwithSHA256 implementation steps was created using the MIRACL Core: Apache License, Version 2.0 library dated 2020 ([https://github.com/miracl/core-snapshot date: 2023-12-08](https://github.com/miracl/core-snapshot-date:2023-12-08)).

B.4.6, a)

Replace the Extracted SigData with:

```
["ISO/IEC 20248:2022", "https://www.dept-edu.com", "QC DGSG", 110, "2024-02-11T12:02:01", "John Doe", "612209498902", ["2021", "2022", "2023"], "Bachelors in Administration", "Business School", "2024-03-04", [{"Structures 101", "degree", "B"}], [{"Accounting 112", "degree", "A"}, {"Statistics 159", "extra", "A"}]]
```

B.4.6, b)

Replace the generated signature with:

```
0x03FAA57BE23549FE02E584B9F14CAEFE2BD5404A8D4165A3CCB5427262D2566AE2
```

Replace the compressed signature with:

```
0xFAA57BE23549FE02E584B9F14CAEFE2BD5404A8D4165A3CCB5427262D2566AE2
```

Replace the encoded the DDDdata after adding the Signature with:

```
0xC098099640006EC96C081A129BDA1B88111ED9621B0DA130B1B432B637B9399034B71020B236B4B734B9BA3930BA34B7B75E84EAE6D2DCCAE6E640A6C6D0DEDED96BBBBB9730B1319730B1973D30B3245729BA393AB1BA3AB932B9901898188DC82C6C6DEEADCE8D2DCE406262641729BA30BA34B9BA34B1B990189A9CC0
```

Replace the URI Envelope with:

```
https://www.dept-edu.com/verify?wJgJlKAbslscBoSm9obiBEb2WibDaEwsbQytje5OZA0txAgsja0tzS5ujkwujs3t16E6ubS3Mrm5kCmxtDe3tlru7u5cwsTGXMLGXPTCzJFcpujk6sbo6uTK5kBiYGI3ILGxt7q30js3M5AYmJkFym6MLo0ubo0sbmQGJgcwA
```

B.4.6, c)

Replace the Extracted SigData with:

```
["ISO/IEC 20248:2022", "https://www.dept-edu.com", "QC DGSG", 110, "2024-02-11T12:02:01", "John Doe", "612209498902", ["2021", "2022", "2023"], "Bachelors in Administration", "Business School", "2024-03-04", [{"Structures 101", "degree", "B"}], [{"Accounting 112", "degree", "A"}, {"Statistics 159", "extra", "A"}]]
```

Replace the extracted signature with:

```
0xFAA57BE23549FE02E584B9F14CAEFE2BD5404A8D4165A3CCB5427262D2566AE2
```