Compliance sheet — star-cdm

Everything a supplier qualification, a legal review or an export check usually asks about star-cdm 0.2.2, in one document.

1. Identity

Document	STAR-PKG-STAR-CDM-EN · v2.3 · 2026-11-14
Package	star-cdm
Version	0.2.2
Capability	star.ssa.cdm
Maturity	Beta (VERIFIED)
Python	>=3.9
Source commit	dc09f61d
Source	https://github.com/Andrea07072000/S.T.A.R.-/tree/main/packages/star_cdm

2. Licence and obligations

Apache License 2.0. You may use, copy, modify and distribute it, also commercially, and you receive a patent licence from the contributors. When you redistribute it: keep the LICENSE file and the copyright notices (and a NOTICE file, if a future version adds one), and state in modified files that you changed them. You may not use the S.T.A.R. name to endorse your product.

3. What it needs at run time

Nothing beyond the Python standard library: it works offline.

4. Integrity

SHA-256 fingerprints of the files published on this website. Check a downloaded file with:

```
python -c "import
hashlib,sys;print(hashlib.sha256(open(sys.argv[1],'rb').read()).hexdigest())" star_cdm-0.2.2-
py3-none-any.whl
```

FILE	SHA-256
star_cdm-0.2.2-py3-none-any.whl	e7eaa40aa96844334877d3d43437f59ab2238628bacacc45b99c3a1be03e8b9a
star_cdm.py	101363f1c48f3a735efa1e1ef3670b58eb75ad1d698b174bd3213b0cc8a5b8a2
star_cdm-0.2.2-source.zip	8e8c30408a35f65fa94fa28626713198f228a69be1d660cc49e7047d0525c762

5. What it does, and its limits

Strict parser for CCSDS 508.0-B-1 Conjunction Data Messages in KVN. Standard library only.

XML CDM, CDM 2.0 (508.0-B-2 draft/updates), collision probability computation, any operational use.

- `parse_cdm(text) -> {"header", "object1", "object2", "warnings"}`: dates as datetimes (CCSDS 502.0 formats only), numbers as floats, units checked against the standard, exactly OBJECT1 then OBJECT2, all obligatory keywords (the set of the standard's example 3.6.2).
- Every malformation raises `CdmFormatError` (unknown keyword, missing obligatory keyword, wrong unit, duplicate, non-numeric, malformed date, wrong object count). Typographic minus signs (U+2212) are normalised and REPORTED.
- `covariance_rtn(obj)` -> symmetric 6x6; `consistency_report(cdm)` compares MISS_DISTANCE with the state vectors and RELATIVE_POSITION_R/T/N and flags inconsistencies without editing values.

6. Export, use and certification

The package is published and freely available. That usually takes software out of export-control lists, but not every use of it: read the page on space activities and export control before using it in a controlled programme. It is not certified or qualified for flight; the evidence describes what was tested and how.

7. Citation and bill of materials

```
@software{cavazzini_star_cdm_0_2_2,
  author  = {Cavazzini, Andrea},
  title   = {{star-cdm}: Strict CCSDS 508.0-B-1 Conjunction Data Message (KVN) parser with
consistency report},
  version = {0.2.2},
  year    = {2026},
  url     = {https://andrea07072000.github.io/S.T.A.R.-/software/star_cdm/},
  note    = {Apache-2.0. Source: https://github.com/Andrea07072000/S.T.A.R.-, commit dc09f61d}
}
```

CITATION.cff · BibTeX · SBOM CycloneDX 1.5 · SBOM SPDX 2.3

8. Warranty and liability

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Related: space activities and export control · acceptable use · evidence and limits · licence texts