SeamStamp v1-mini (SS1m): A Human-Checkable Receipt for Seam Integrity and Edition Identity

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Abstract

We formalize *SeamStamp v1-mini (SS1m)*, a one-line receipt that verifies both the scientific seam and the edition identity of a paper without cryptographic hashes. SS1m uses four seam numbers $(\Delta\kappa, ir, s, \text{tol})$, a two-token placement (θ, ϕ), and a short edition code (EID). It is shorter than a SHA-256, upgrade-safe under layout changes, and checkable with pencil-and-paper. We specify the stamp, the verification math, the topic compass, the edition triads, usage policy, and edge-case handling.

[1]

[1] SS1m | Δ =+0.60 ir=1.822 s=0.000 0.005 | =4 =S | EID=P=30,F=12,T=3,E=10,R=122 | C=[41,72,30]

1 Introduction

A cryptographic digest (e.g., SHA-256) proves byte identity but is silent about argument integrity and human-legible edition shape. SS1m complements or replaces hashing in everyday scholarship by verifying: (i) the *seam*—the reconciliation of the return budget—and (ii) the *edition*—the visible document one can inspect by eye.

2 Specification (SS1m)

One-line stamp

$$\boxed{\mathsf{SS1m} \mid \Delta\kappa{=}\cdot \;\; ir{=}\cdot \;\; s{=}\cdot \le \mathrm{tol}{=}\cdot \mid \theta{=}\cdot \;\; \phi{\in}\{D,R,S\} \mid \mathrm{EID}{=}\cdot}$$

Fields:

- $\Delta\kappa$ (upgrade), $ir \equiv I_{t1}/I_{t0}$ (integrity ratio), s (residual), tol (tolerance).
- θ (topic sector index, 0–11; Section 4), ϕ (phase band: D=DRIFT, R=RETURN, S=SHIP).
- EID: compact EID12 code or readable edition tuple EIDr (Section 3).

Seam checks (science)

Two mechanical checks suffice:

$$\textbf{Dial–Ledger Equivalence:} \quad ir \approx e^{\Delta\kappa} \quad \text{(3–4 sig figs)} \tag{1}$$

$$\textbf{Budget Closure:} \quad s \;=\; \Delta\kappa - \big[R\cdot\tau_R - (D_\omega + D_C)\big], \quad \text{pass if } |s| \le \mathrm{tol}. \tag{2}$$

Typed outcomes apply: if a claim is ∞rec (no return in horizon) or $\perp$oor (out of range), do not coerce a number.

3 Edition Identity (EID)

Counts and triads

Let (P, F, T, E, R) be the counts of pages, figures, tables, numbered equations, and references. Define three small checks:

$$C_1 = (P\cdot F + T) \bmod 97, \tag{3}$$

$$C_2 = \big(\text{A1Z26 sum over all section titles}\big) \bmod 97, \tag{4}$$

$$C_3 = (R\cdot E) \bmod 97. \tag{5}$$

These bind global shape (pagination/layout), skeleton (titles), and scholarly spine (refs/eqs).

Readable vs. compact EIDs

Readable (always acceptable). `EIDr: P=<P>, F=<F>, T=<T>, E=<E>, R=<R> | C=[<C1>, <C2>, <C3>]`

Compact (optional, 12 chars). Map each of $P, F, T, E, R, C_1, C_2, C_3$ modulo 32 into Crockford Base32

`0123456789ABCDEFGHJKMNPQRSTVWXYZ`

to obtain eight characters, then append three checksum characters (e.g., remainder and parity over the eight symbols) and one check digit to yield EID12. Either version is acceptable; EIDr maximizes transparency.

4 Topic Compass and Phase

Fix a 12-sector compass per publishing cycle (season). The default index is:

0	Core Grammar	6	Ethics
1	Collapse Math	7	Systems
2	Integrity Stack	8	Biology/Physiology
3	Ancient Law	9	Cosmology
4	Architecture	10	Methods/Stats
5	Ritual/Operator	11	Commentary/Synthesis

Print the primary sector index θ; phase $\phi \in \{\mathrm{D}, \mathrm{R}, \mathrm{S}\}$ encodes maturity (DRIFT/RETURN/SHIP).

5 Edge and the SeamStamp Sphere

For visualization and boundary-tracking, define the radius

$$r \;=\; 0.5\, e^{-\Delta\kappa} \;+\; 0.5\, \min\!\left(1, \frac{|s|}{\mathrm{tol}}\right). \tag{6}$$

Dots inside the unit sphere ($r < 1$) are reconciled; $r \approx 1$ traces the edge (where $|s| = \mathrm{tol}$ and $\Delta\kappa \approx 0$). Angles derive from the compass (azimuth) and phase bands (elevation). The sphere is optional; the *stamp* alone is sufficient for verification.

6 How to Apply SS1m (per paper)

1. Compute the seam row $(\Delta\kappa, ir, s, \mathrm{tol})$ and verify (1)–(2).
2. Choose θ from the compass and ϕ by phase.
3. Count (P, F, T, E, R) and compute (C_1, C_2, C_3).
4. Print the stamp in the release block or footer.

Example stamping (placeholders).

> SS1m | $\Delta\kappa = +0.51$ $ir = 1.665$ $s = 0.000 \le 0.005$ | $\theta = 3$ $\phi = S$ | EID=F7QH-29AM-2P

7 When to Use (and Not Use)

Use SS1m for RETURN/SHIP papers, corpus continuity, classrooms, and meetings where pen-and-paper checking is preferred.

Optional/Skip for DRIFT notes or purely artistic prose. For adversarial/legal contexts, pair SS1m with a cryptographic manifest or document hash; SS1m verifies *truth and edition*, the hash verifies *bytes*.

8 Edge Cases and Continuity

Layout reflow: EID changes; seam may remain identical; continuity is preserved by re-stamping.
Translation: new EID; same seam where applicable; label language in release notes.
Redaction: new EID by definition; typical continuity weld uses $\Delta\kappa{=}0, s{=}0$.

9 Minimal Implementation Notes

SS1m avoids heavy automation. Two people can independently: (i) check $ir \approx e^{\Delta\kappa}$; (ii) compute s and compare to tol; (iii) recount (P, F, T, E, R) and triads. If using the Sphere, compute r and plot by hand.

A SeamStamp Macros (copy/paste)

```
% --- Already defined above; duplicate here for portability ---
\newcommand{\SSone}{\textsf{SS1m}}
\newcommand{\SSSetup}[7]{%
  \def\SSdk{#1}\def\SSir{#2}\def\SSs{#3}\def\SStol{#4}\def
  \SStheta{#5}\def\SSphi{#6}\def\SSeid{#7}}
\newcommand{\EIDr}[8]{\texttt{P=#1,F=#2,T=#3,E=#4,R=#5 \,|\, C=[#6,#7,#8]}}
\newcommand{\SeamStamp}{%
  \SSone{} \,|\, $\Delta\kappa=\SSdk$ $\;ir=\SSir$
  $\;s=\SSs\le\SStol$ \,|\, $\theta=\SStheta$ $\phi=\SSphi$ \,|\, EID=\SSeid}
```

B Crockford Base32 (for EID12)

0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
G	H	J	K	M	N	P	Q	R	S	T	V	W	X	Y	Z

Compute each of $P, F, T, E, R, C_1, C_2, C_3 \pmod{32}$ and map to the table above to form the first 8 symbols; append three checksum symbols and one digit as your local convention requires. Alternatively, publish the readable tuple EIDr.

C Release Footer Stencil

Release: *<Paper Title>* **Date:** *YYYY-MM-DD* **Mode:** RCFT **Weld ID:** *W-YYYY-MM-DD-<slug>*
Stamp:`SS1m` | $\Delta\kappa = +0.60$ $ir = 1.822$ $s = 0.000 \le 0.005$ | $\theta = 4$ $\phi = S$ |
EID=`P=30,F=12,T=3,E=10,R=122 | C=[41,72,30]`

D Operational Retrieval with SeamStamp (CFR)

We define a pencil-checkable retrieval compass that ranks papers using only the SeamStamp fields $(\Delta\kappa, ir, s, \mathrm{tol}, \theta, \phi)$ and a chosen *axis sector* θ^* for the current query (canon or topic).

Derived quantities (from SS1m)

$$\rho \coloneqq \min\left(1, \frac{|s|}{\mathrm{tol}}\right), \qquad \text{edge pressure (0 good, 1 at boundary),} \tag{7}$$

$$u \coloneqq \tanh(\Delta\kappa), \qquad \text{upgrade pull } (\approx 0 \text{ small}, \to 1 \text{ strong}), \tag{8}$$

$$w_\phi \in \{0.2,\, 0.6,\, 1.0\}, \qquad \text{for } \phi \in \{\mathrm{D}, \mathrm{R}, \mathrm{S}\} \text{ respectively,} \tag{9}$$

$$d_\theta \coloneqq \frac{\mathrm{circdist}(\theta, \theta^*)}{6} \in [0, 1], \qquad \text{sector gap on a 12-sector compass.} \tag{10}$$

Priority scores

Canon-first (stable references):

$$\Pi_{\mathrm{canon}} = 0.5\,(1 - \rho) + 0.3\,u + 0.2\,w_\phi - 0.2\,d_\theta. \tag{11}$$

Edge-hunting (frontier scans):

$$\Pi_{\mathrm{edge}} = 0.6\,\rho + 0.2\,d_\theta + 0.2\,(1 - w_\phi). \tag{12}$$

How to use (by hand). Choose θ^* (e.g., 0 for Core Grammar, 4 for Architecture), read the SS1m of each paper, compute $\rho, u, w_\phi, d_\theta$, and rank by Π_{canon} or Π_{edge}. Tie-break: longer continuity chain (same weld stem) wins; then higher ir.

Tiny macros (reuse anywhere)

$\Pi_{\mathrm{canon}} = 0.5(1-\rho) + 0.3u + 0.2w_\phi - 0.2d_\theta$ and $\Pi_{\mathrm{edge}} = 0.6\rho + 0.2d_\theta + 0.2(1-w_\phi)$.

When appropriate. Use CFR on RETURN/SHIP papers with valid SS1m. Skip for DRIFT notes or non-argument prose. In adversarial/legal contexts, pair SS1m/CFR with a cryptographic manifest if byte-identity is required.

Worked micro-example. Given SS1m: $\Delta\kappa$=0.60, s=0, tol=0.005, ϕ=S, θ=4, choose θ^*=0. Then ρ=0, $u \approx \tanh(0.60) \approx 0.537$, w_ϕ=1.0, d_θ=4/6≈0.667. Thus $\Pi_{\mathrm{canon}} \approx 0.5 + 0.161 + 0.2 - 0.133 \approx 0.728$.