

BEADZ: A Fully-Reserved Bead-Collateralized Bearer Instrument

A Technical and Monetary Whitepaper of The Bead Reserve

SERIES A · 2026 · UNISSUED EDITION

Unissued Edition. This document specifies a currency that its authors have elected not to issue. No BEADZ has been deployed to any chain by The Bead Reserve, Curt Henrichs LLC, or anyone affiliated with either. Any token presenting itself as BEADZ is not this one, is not endorsed, and is backed by nothing in the jar.

Abstract

We present BEADZ, a digital bearer token fully and continuously collateralized by a physical reserve of glass seed beads held in a sealed jar (the “Fault”) and observed by camera. Each BEADZ is redeemable for one (1) bead. Unlike collateralized instruments whose reserves are attested by quarterly reports from an accounting firm, the BEADZ reserve is attested by a webcam pointed at a jar, which we contend is a strict improvement in both latency and honesty. Total supply is minted once and is thereafter permanently non-increasing; the only monetary operation available after genesis is destruction via redemption. BEADZ has no monetary value, targets no monetary value, and is issued solely for amusement.

1. Introduction

Modern reserve-backed tokens rest on a chain of trust: the holder trusts the issuer, the issuer trusts a custodian bank, the bank trusts its own ledger, and an auditor trusts all of the above on a delay of roughly ninety days. Each link is a place where the reserve can quietly fail to exist.

BEADZ collapses this chain to a single physical object a person can see. The reserve is a jar. The jar is in a box. The box has a camera in it pointed at the jar. There is no custodian, no rehypothecation, and no maturity mismatch, because beads do not earn yield and cannot be lent out, a property we consider a feature.

The remainder of this document specifies the reserve, the proof-of-reserve mechanism, the token, its distribution and redemption, and the deliberately minimal governance that surrounds it.

2. The Reserve

The reserve consists of **47,318** glass seed beads (nominal; see §3 on the genesis count) of mixed color, held loose in one (1) standard glass jar. The jar is stored inside a cardboard box (the “Fault”) at an undisclosed interior location. The beads are indivisible; the jar is not insured; the box is not fireproof. These limitations are disclosed in the interest of the radical transparency the reserve is designed to provide.

No bead may leave the Fault except through the redemption process specified in §6. Beads are never added after genesis. The reserve is therefore, like the token, a strictly non-increasing quantity.

3. Proof of Reserves

3.1 The genesis count

At genesis, the beads were poured into the jar and counted once, by hand, in private. The resulting figure, the **Genesis Count**, was enshrined as total supply and is final. The Vault Keeper makes no representation that the Genesis Count is arithmetically correct, only that it is honestly reported. A hand-count of several tens of thousands of small beads is understood to carry error. Any such error is hereby declared canonical: the reserve is defined as whatever was counted, not whatever is true.

The count itself was not witnessed by camera; the Vault Keeper is shy. The camera’s role begins afterward and is different in kind. It does not verify the count but attests, continuously and thereafter, that the sealed jar has not been opened or disturbed since (except through the redemption process). The Reserve thus proves **continuity of custody**, not the tally: the quantity is established once, under trust, and the seal is monitored forever.

3.2 Continuous attestation

A camera (“Fault-Cam 01”) observes the jar and captures periodic images. Each image is hashed and signed at the device, and the hashes are published, continuously and publicly, for independent verification. The chain is engaged on a reporting cadence rather than per image: each period’s published hashes are committed to a Merkle root and anchored on-chain via `attestReserveRecord`, while bead recounts are logged separately via `attestBeadCount`. Together these produce a tamper-evident, timestamped record of the reserve’s status. This is functionally identical to a commercial proof-of-reserve oracle, differing only in that the underlying asset is beads and the oracle is a webcam.

3.3 Automated audit (optional module)

A small vision-language model may be pointed at the camera feed to produce a periodic audit in the institutional register, e.g.:

*Reserve audit complete. Jar present. Lid seated. Bead level nominal. Collateralization ratio: 100.0%.
The Fault remains secure.*

The model is designated **Chief Reserve Officer**. Its findings are advisory. It cannot count the beads but may, from time to time, claim to.

4. Token Design

BEADZ is a standard ERC-20 token specified for Base.

PARAMETER	VALUE
Name / Symbol	Beadz / BEADZ
Decimals	18
Genesis supply	47,318 BEADZ (= the Genesis Count)
Peg	1 BEADZ = 1 bead (collectible, not monetary)
Mint authority	None after construction
Supply trajectory	Non-increasing; reducible only by redemption

Although a bead is physically indivisible, BEADZ is divisible to 10^{-18} . The smallest unit is one **beadwei**. The Bead Reserve makes no attempt to explain what one quintillionth of a bead is and advises holders against redeeming for one.¹

The supply guarantee is structural rather than promissory. The contract contains no owner, no minter role, and no mint path of any kind; the entire supply is created in a single constructor call and the capability is then simply absent. There is nothing to renounce because there is nothing to hold.

5. Distribution

BEADZ is distributed in two ways, both settled at genesis from a single fixed supply: an **open genesis claim** and a **discretionary reserve**. There is no sale, no presale, and no liquidity pool created or endorsed by the Bead Reserve.

At deployment the full supply is minted once and split between (i) the token contract, which holds the **open-claim pile**, and (ii) a **discretionary reserve** (the “treasury”): a separate pile of BEADZ, distinct from the open-claim pile, held at its own fixed address for hand-distribution — gifts, airdrops, and such marketing as a token of no value can be said to require. The treasury address is set at genesis and no code path can reassign it; it is deliberately not the Vault Keeper’s key, which holds no tokens in any capacity (§8). The split is carved from the fixed genesis supply, not minted in addition to it: it changes neither total supply nor collateralization, and dilutes no one, there being nothing to dilute. The size of each portion is fixed at deployment and disclosed on-chain via the `GenesisAllocated` event.

Any wallet may call `claim()` once to receive one (1) BEADZ from the open-claim pile, paying only network gas. Claiming distributes pre-existing supply; it does not mint, and it does not remove any bead from the Fault. Only the entitlement moves.

The pile does not dispense on demand. Disbursement is *metered*: the faucet accrues exactly one claimable bead every 432 seconds (200 beads per day), beginning empty at genesis, and holds at most one day’s allotment (200 beads) pending at any moment. Allotments left unclaimed beyond

¹The contract enforces this advice on the Reserve’s behalf: redemption is accepted in whole beads only (§6.2), a guard included principally so that the Vault Keeper can never be asked to divide a bead with a hacksaw — an operation the Reserve has considered and declined to attempt.

that day *lapse*; the Reserve does not bank inattention. The rate is a compile-time constant of the contract — no party, including the Vault Keeper, can raise, lower, or suspend it. The Reserve adopted this schedule after observing that an unmetered pile is chiefly an invitation to operate wallets in bulk, and notes for the record that a thousand wallets waiting at one faucet still share the faucet.

A holder may also **surrender** BEADZ back to the open-claim pile at any time, returning the tokens to circulation for others to claim and reopening their own eligibility to claim again.² Surrender does not burn: supply and reserve are unchanged; the beads simply return to the pile. The Reserve offers this facility for holders who have reflected on their position and offers no opinion on why one would relinquish a free bead.

Because no market is created, BEADZ has no price and no means of sale at issuance. It is a collectible. Holders wishing it had a price are directed to §9.

6. Redemption and Settlement

6.1 Physical redemption

A holder may destroy BEADZ to claim the corresponding beads. Redemption is settled physically, by **prepaid certified mail with signature confirmation**, in keeping with the standard of care appropriate to a bearer instrument. The redeemer bears all postage.

The Reserve does **not** require or provide insurance on redemption shipments; no policy underwrites glass beads and none is warranted. Redemption is **final upon burn**: the on-chain destruction is irreversible, and the Reserve does not reship, refund, or re-mint. Risk of loss passes to the redeemer at burn. A bead lost in transit is, for all purposes, a bead redeemed. The redeemer has been advised the contents are worthless and proceeds accordingly.

Upon redemption, the Vault Keeper will identify the specific bead or beads corresponding to the particular BEADZ burned, drawing on institutional knowledge of the reserve to match each redeemed bead-claim to its bead in the jar. Retrieval is physical and manual, and may require fishing the bead out, performed to the best of the Vault Keeper's ability. The Reserve represents that this mapping is exact and declines to elaborate on how it is maintained.

6.2 Minimum redemption lot

Redemption is available in lots of **1 bead or greater, in whole beads only** (the "creation unit"): the bead is indivisible in fact, and the contract keeps it indivisible in settlement by refusing fractional lots. Because the cost of the certified-mail ceremony exceeds the value of a single bead by several orders of magnitude, redemption — though unbounded above — is a right that no rational holder exercises, which is precisely what keeps the reserve stable.

6.3 Two-legged settlement

A redemption has a **crypto leg** and a **postal leg**. The crypto leg is the on-chain burn, which is instantaneous and final. The postal leg is the physical shipment; its finality is the delivery signature. Upon shipment the Vault Keeper records the tracking number on-chain via `acknowledgeRedemption`,

²Eligibility reopens only when at least one (1) whole bead is returned. A sub-bead surrender is received as a donation to the pile and reopens nothing; the Reserve is grateful, and unmoved.

so that each redemption produces a complete, auditable cross-domain settlement record, a genuine two-legged settlement for imaginary money.

6.4 The ratchet

Redemption burns the tokens, permanently reducing total supply, and removes the corresponding beads from the Fault. Outstanding BEADZ therefore always equals the beads still owed, and the system can only ever move in one direction: toward an empty jar in a box, still lit, still on camera. This terminal state is acknowledged and accepted.

6.5 The redemption window

Physical redemption is time-boxed. It opens at genesis and remains open for one (1) year. The Vault Keeper may, by a deliberate on-chain act, **extend** an open window outward or **reopen** a lapsed one, in each case by at most approximately one year per action. The Keeper can never shorten a window that is currently open; the redemption right, once granted, cannot be withdrawn from a holder able to exercise it. In effect the window can only ever be widened, never narrowed: a renewal the Reserve must affirmatively perform, or allow to lapse.

Should the window lapse and not be reopened, physical redemption ceases and BEADZ persists as a pure collectible: the tokens transfer and exist as before, but carry no further claim on the Fault, whose contents pass into permanent, unredeemable repose. The jar remains, lit and photographed hourly, for no reason.

7. Monetary Policy

There is none. Supply is fixed at genesis and can only decline. There is no issuance schedule, no staking, no yield, no rebasing, and no discretionary monetary authority. The Bead Reserve considers the absence of a monetary policy to be its monetary policy.

8. Governance

Governance is minimized to a single role, the **Vault Keeper**, whose on-chain powers are deliberately confined to:

- logging bead recounts (`attestBeadCount`);
- acknowledging shipments (`acknowledgeRedemption`);
- anchoring the published reserve record's Merkle root on chain (`attestReserveRecord`), an event-only act that touches no balances;
- extending or reopening the redemption window (`setRedemptionDeadline`), a power that can only ever widen access, never remove it; and
- rotating its own key (`transferVaultKeeper`), where the new key must be confirmed twice to prevent a mistype, or retiring the role permanently through a separate, deliberate freeze.

The Vault Keeper **cannot** mint, move, freeze, or seize any holder's tokens. The role holds no power over balances and is therefore operable as a low-value hot key without endangering the system. Key hygiene is the Keeper's own concern; a compromised Keeper key can, at worst, publish dishonest

bead counts, which the camera would contradict, or widen a redemption window, which harms no one.³

8.1 Compromise, loss, and redeployment

There is **no administrative override**. `transferVaultKeeper` is callable only by the sitting Keeper, so a lost Keeper key cannot be recovered, and a compromised one cannot be forcibly reclaimed, through the contract. This is deliberate: a backdoor able to rescue the Keeper would be a larger attack surface than the powerless role it protects.

Because the Keeper controls no tokens, a compromise or loss costs no value: only continuity. The response is to **redeploy**: a fresh contract is published with a new Keeper, and the Reserve designates it the canonical BEADZ. For holders, this means:

- The superseded contract and its tokens continue to exist, harmlessly, at their old address; they are simply no longer canonical. An attacker holding the old Keeper key controls only that deprecated contract's valueless attestation functions.
- Because a single jar can back only one token at a time, the physical reserve backs whichever contract the Reserve currently designates canonical, as announced on the site and in this document. Redemption is honored only against the canonical contract.
- Holders of a superseded series are made whole, if at all, by snapshot and re-airdrop at the Reserve's sole discretion; migration is not automatic. For a collectible of no value, the Reserve may also decline to migrate and let the prior series stand as a historical artifact.

In short: a Keeper compromise resets the token's address and continuity. It moves no balances and touches no reserve: the contract itself never transfers a holder's tokens.

9. Risk Factors

Prospective holders should be aware:

- **BEADZ has no monetary value and is not expected to acquire any.** This is by design, not misfortune.
- **There is no market.** No pool is provided; there is nowhere to sell.
- **The faucet may be empty when you arrive.** Claims are metered at 200 beads per day (§5) and unclaimed allotments lapse. A visitor may need to return later, which the Reserve regrets precisely as much as it planned.
- **The reserve is uninsured** and stored in a cardboard box.
- **The Genesis Count may be wrong.** See §3.1.
- **Redemption costs vastly more than the beads are worth.** See §6.2.
- **A third party could, without authorization or endorsement, create a market for BEADZ.** Any such market, price, or loss arising from it is that party's doing and risk, not the Bead Reserve's. Holders who choose to transact in such a market do so entirely at their own risk.
- **The contract may be superseded.** On loss or compromise of the Keeper key there is no recovery path; BEADZ may be redeployed, and the canonical token is whichever the Reserve designates. A superseded series is not automatically migrated and may be left standing as a historical artifact.

³At genuine worst, a compromised key could rotate the role to the attacker or freeze it outright — silencing attestation and letting the redemption window lapse for good. Even then, not one holder's balance moves; the loss is continuity, not beads, and the remedy is redeployment (§8.1).

- **Redemption is time-boxed and may lapse.** The window is open one year at genesis and is renewed only if the Vault Keeper affirmatively extends or reopens it. If it lapses without reopening, physical redemption ends permanently and BEADZ continues as a collectible with no claim on the Fault.
- **Loss of one's wallet keys results in permanent loss of one's beads,** which remain in the jar, visible on camera, forever out of reach.
- **Continuity of operations under civilizational stress.** In the event of prolonged infrastructure failure or societal collapse, the Reserve's monitoring and audit functions should be expected to degrade. Fault-Cam 01 depends on power and network and will go dark; the Chief Reserve Officer depends on both and on continued inference availability, and will cease to file its attestations, spurious or otherwise. The on-chain record persists only so long as the underlying network does. The physical reserve, however, is comparatively robust: it is a jar, inside a cardboard box, and requires nothing to continue existing. The Vault Keeper undertakes to secure the box for as long as is practicable. It remains uninsured. No provision has been made for its recovery from fire, flood, or looting, the beads being judged unlikely to attract any of the three. The Reserve further notes that its collateral is portable and reconstitutable at negligible cost: no single physical jar is essential, and should any specific jar be lost, compromised, or merely become inconvenient, an identical reserve may be re-poured elsewhere and re-attested. In any such reconstitution the Vault Keeper will color-match the replacement beads to the lost reserve as closely as can be managed, so that the new jar approximates the old. There is, in the end, nothing here worth coming for.

10. Legal and Regulatory Positioning

BEADZ is a novelty collectible issued for amusement. The Bead Reserve takes the following positions, which are statements of design intent and not legal advice:

- **Not a payment stablecoin.** BEADZ is pegged to beads, a physical collectible, not to a fixed amount of monetary value. It makes no representation of a stable value relative to any national currency and is not designed for payment or settlement of monetary obligations. It is accordingly outside the definition of a "payment stablecoin" under applicable federal law.
- **Not a security.** BEADZ is sold to no one, promises no return, funds no enterprise, and creates no expectation of profit from the efforts of others.
- **Not a deposit or payment instrument,** and not federally insured (there is nothing to insure but beads).
- **Issued for own account.** The Bead Reserve does not exchange, transfer, store, or administer digital assets on behalf of others, and operates no market on their behalf.

These disclaimers appear on every public-facing surface of the project and are made in earnest.

11. Roadmap

The Bead Reserve is skeptical of roadmaps. The following are acknowledged as possible future undertakings of questionable utility, in no committed order:

- a second jar
- a bead of unusual color held as a strategic reserve asset
- a governance proposal to change nothing

- a printed annual report audited by the Chief Reserve Officer

None of these are promised. Subscribers to the Vault Keeper's dispatches will be notified if any occur.

12. Conclusion

BEADZ demonstrates that the full apparatus of a reserve-backed digital bearer instrument (collateral, proof of reserves, redemption, settlement, and disciplined monetary policy) can be implemented honestly, cheaply, and in its entirety around an asset of no value. A system which is completely transparent, fully reserved, structurally incapable of inflation, and worth nothing sounds like a contradiction. We submit that it is an achievement.

The jar is on camera. The count is final. One bead is one bead.

Appendix A: Glossary

Bead-wei the smallest divisible unit of BEADZ, 10^{-18} of a bead. Non-redeemable in practice.

The Fault the cardboard box containing the reserve jar. Named for a vault that is also a structural flaw.

Creation unit the minimum redemption lot (1 bead), below which physical redemption is disallowed. Redemption proceeds in whole beads only.

Genesis Count the one-time hand-count of the jar at deployment, defining total supply.

The ratchet the property that supply and reserve can only decrease, via redemption.

Appendix B: Contract Summary

Specified for Base. Built on OpenZeppelin's audited ERC-20. Key entry points:

- `claim()`: receive one bead from the genesis mint (one per address; disbursement metered globally at 200 beads/day — see §5).
- `surrender(amount)`: return BEADZ to the open-claim pile for redistribution (does not burn; returning ≥ 1 whole bead reopens your claim — less is a donation).
- `redeem(amount, shippingRef)`: burn ≥ 1 bead, in whole beads only, to request physical shipment while the redemption window is open. `shippingRef` is an off-chain reference only; no postal address is ever written on-chain.
- `redemptionOpen()` / `redemptionDeadline`: current redemption-window status.
- `claimableBeads()` / `nextBeadAt()`: current faucet status — beads claimable this moment, and when the next bead drips.
- `setRedemptionDeadline(newDeadline)`: Vault Keeper only. Extends an open window or reopens a lapsed one, capped at 1 year per action; cannot shorten an open window.
- `attestBeadCount(beads)` / `acknowledgeRedemption(...)`: Vault Keeper attestation and shipment logs.
- `attestReserveRecord(merkleRoot, uri)`: Vault Keeper only. Anchors a period's published reserve record (merkle root of signed camera-frame hashes); event-only, changes no state.

- `transferVaultKeeper(action, newKeeper, confirmKeeper)`: Vault Keeper only. Rotates the role to a new key — entered twice, to survive the Keeper's own typing — or, with the zero address in both slots, freezes the role permanently. There is no recovery path; see §8.1.
- `collateralizationBps()`: attested beads vs. outstanding supply, in basis points.

Contract address: *none. This currency was not issued.*

This edition specifies a currency that was never issued. BEADZ is a joke that is fully collateralized. It has no monetary value and is not an offer of, or solicitation to buy, anything. Nothing herein is financial, legal, or horticultural advice. One (1) bead $\approx$ one (1) bead.