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# ============================================================
# K501 · QUANTUM BOOTFRAME
# ============================================================
# EDITION: SCIENTIFIC / REFERENCE
# MODE: REFERENCE_ONLY
# EXECUTION: NONE
# INTERPRETATION: FORBIDDEN
# MUTATION: APPEND_ONLY
# DRIFT_POLICY: ZERO
# ============================================================

BOOTFRAME K501_QUANTUM_REFERENCE:

  META:
    BOOT_ID: K501-QBF-REF-001
    VERSION: 1.0.0
    DATE_UTC: 2026-02-06
    AUTHOR: Patrick Robert Miller
    ORIGIN: FRAMES / K501
    SCOPE: SCIENTIFIC_REFERENCE
    LICENSE: PUBLIC_DOMAIN

  GLOBAL_CONSTRAINTS:
    - NO_EXECUTION
    - NO_STATE_MUTATION
    - NO_IMPLICIT_ACTION
    - NO_INTERPRETATION
    - APPEND_ONLY
    - OBSERVATION_IS_NON_INVASIVE

  DEFINITIONS:
    FRAME:
      DESCRIPTION: >
        A FRAME is a descriptive, append-only informational unit.
        It records structure, not effect.
      PROPERTIES:
        - immutable_once_written
        - referential
        - non-operational

    BOOTFRAME:
      DESCRIPTION: >
        A BOOTFRAME defines boundary conditions for interpretation,
        execution, and mutation.
        It initializes constraints, not behavior.

  AXIOMATIC_BASE:
    A1:
      STATEMENT: >
        Observation of a frame does not modify the frame.
    A2:
      STATEMENT: >
        Description is not equivalent to execution.
    A3:
      STATEMENT: >
        Structural consistency is preserved under arbitrary access.
    A4:
      STATEMENT: >
        Append-only mutation preserves historical integrity.
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  QUANTUM_ALIGNMENT:
    DOMAIN: EPISTEMIC
    CLAIMS:
      - No physical quantum effects asserted
      - No collapse postulated
      - No observer effect implied
    NOTE: >
      The term "quantum" is used strictly in the sense of
      non-invasive observation and system/observer separation.

  MODES:
    CURRENT:
      MODE: REFERENCE_ONLY
      EXECUTION: NONE
      INTERPRETATION: FORBIDDEN
      STATE: QUIESCENT

  SAFETY_GUARDS:
    - Any operational use requires an explicit new frame
    - This bootframe cannot trigger processes
    - Copying this frame does not instantiate behavior

  TERMINATION:
    STATUS: COMPLETE
    FOLLOW_UP: NONE_REQUIRED
    SILENCE_IS_VALID: TRUE

# ============================================================
# END OF K501 · QUANTUM BOOTFRAME
# ============================================================
```