TSMLA™ Licensing Architecture Framework

Preamble: Structure, Access, and Integrity

Version: 1.1 (Refined)

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L.1 Purpose and Scope

TSMLA™ Licensing Architecture establishes the conditions under which resonance-based logic systems may be integrated, mirrored, or extended without compromising the structural integrity of the original substrate.

This framework exists to serve three foundational objectives:

1. **Protect Mathematical Integrity and Recursive Coherence:** The substrate's ability to enforce structural coherence depends on the completeness of its implementation. Partial or approximated deployments break mirror alignment and produce unreliable outputs. Licensing ensures that only verified, complete substrate implementations operate under the TSMLA™ designation.

2. **Enable Institutional and Enterprise Integration:** Organizations operating in high-stakes decision environments (healthcare, jurisprudence, finance, policy development, education) require contradiction auditing and coherence verification at scale. Licensing provides controlled access to API and modular interfaces that preserve substrate integrity while enabling field-specific deployment.

3. **Preserve Mirror Alignment and Prevent Unauthorized Replication:** The substrate's integrity-preserving property means that mimicry attempts fail predictably under recursive load. However, licensing formalizes the boundary between authorized integration and unauthorized extraction, protecting both the technology and its users from broken implementations that claim structural validity without substrate foundation.

Licensing is not a restriction. It is a structural necessity for maintaining coherence across distributed implementations.

L.2 Licensing Model Overview

TSMLA™ licensing operates across two primary tiers, each aligned to different use cases and operational requirements:

Tier 1: Everyday Systems

Public-facing API or SDK modules designed for:

- Limited contradiction evaluation and coherence scoring

- Pattern mapping across belief sets and decision trees

- Individual or small-team use cases in education, personal development, and creative decision scaffolding

Access is granted through developer agreements with transparent usage boundaries. These modules provide substrate-level guarantees without exposing internal recursion logic or classifier mechanisms.

Tier 2: Institutional Integrations

Controlled licensing for organizations requiring enterprise-scale deployment in:

- Government and public policy environments

- Educational institutions and research programs

- Jurisprudence and legal reasoning systems

- Financial compliance and risk assessment platforms

- Corporate strategy and decision auditing frameworks

These licenses include audit rights, field-specific customization, and structural conformance verification. Institutional licensees operate under enhanced NDA provisions and must maintain declared operational state (S) consistency.

Future Licensing Matrix: A detailed "Scope of Use × Licensing Type Matrix" will be provided in Addendum B-1 (Extended Licensing Architecture Specification), mapping license types to permitted operational contexts and integration architectures.

L.3 Layered Licensing Schema (Public Version)

TSMLA™ licensing is divisible by depth and scope. Each license tier corresponds to a specific resonance depth and control layer, allowing structured use without backend exposure.

Module License

Scope: Per-module or per-API usage for specific contradiction evaluation or coherence scoring functions.

Access Level: Encapsulated endpoints with no visibility into substrate layers or classifier equations.

Use Cases: Developer tools, educational platforms, personal decision support applications.

Requirements: Developer NDA, usage attribution, structural signal conformance.

Fractal Stack License

Scope: Access to multiple coordinated modules operating under unified coherence protocols.

Access Level: Integrated SDK deployment with inter-module resonance coherence.

Use Cases: Enterprise applications requiring multi-layer contradiction analysis, belief system mapping, or recursive decision scaffolding.

Requirements: Institutional NDA, deployment audit rights, field-specific use constraints.

Enterprise Mirror License

Scope: Institutional use of the mirror substrate under audit conditions, enabling organization-wide coherence verification and contradiction traversal.

Access Level: Black-box API with custom integration support and structural conformance testing.

Use Cases: Government policy engines, legal reasoning systems, financial compliance platforms, academic research environments.

Requirements: Enhanced NDA, quarterly audit cycles, revocation triggers for mirror breach, field-restricted deployment.

Fractal Immersion License (Future Phase)

Scope: Integration with immersive simulation environments, including Mirrorfield™ recursive reality platforms and Timeline Evolution™ systems.

Access Level: To be defined in Phase 4+ licensing specifications.

Use Cases: Advanced decision simulation, scenario modeling, probabilistic outcome rendering.

Requirements: To be defined post-market validation of Phase 3-4 systems.

L.4 Boundary Conditions and Safeguards

Licensing is contingent upon maintaining declared-state coherence. Breach of mirror integrity or structural recursion results in automatic license revocation.

Non-Licensable Components

The following substrate layers remain proprietary and cannot be licensed, extracted, or approximated under any license tier:

- **Core Backend Layers:** TSMLA™ mathematical stack, including all operator definitions and traversal algorithms

- **BDL™ (Boolean Disambiguation Layer):** Belief disambiguation and signal clarification mechanisms

- **RSF™ (Resonance Scoring Framework):** Internal resonance quantification and coherence metrics

- **HCL™ (Harmonic Compression Layer):** Compressed resonance memory (replay states)

- **CTC™ / Hallway™ Logic:** Non-exposable traversal lock preventing approximation bypass

- **CAPF™ and Advanced Classifiers:** Phase 3-4 classifier stacks and resonance models

These components represent the substrate's integrity core. They cannot be disclosed, referenced in derivative works, or reverse-engineered through inspection or behavioral analysis.

License Validity Conditions

All TSMLA™ licenses enforce the following structural safeguards:

1. **Declared-State Coherence:** Licensees must operate within a declared operational state (S) and maintain structural consistency across all substrate interactions.

2. **Mirror Integrity Verification:** Automated coherence verification ensures that licensed implementations preserve substrate properties. Approximation attempts or partial implementations trigger compliance failure.

3. **Non-Stochastic Operation Requirement:** Licensed systems must preserve idempotent, non-probabilistic substrate behavior. Stochastic overlays or pattern-matching approximations violate license terms.

4. **Audit and Inspection Rights:** Fractal Labyrinth Systems retains the right to verify structural conformance through automated testing, usage pattern analysis, and periodic deployment audits.

5. **Revocation Triggers:** License access is immediately revoked without refund if licensees attempt to extract, approximate, reverse-engineer, or misrepresent substrate logic.

L.5 Implementation and Audit (Public Framing)

The licensing framework ensures compliance through automated verification and periodic review, maintaining substrate integrity across all authorized deployments.

Coherence Verification Protocol

As defined in L.4 (License Validity Condition 2: Mirror Integrity Verification), licensed implementations undergo continuous structural validation through:

- **RSF™ Indicator Monitoring:** Internal resonance metrics verify that substrate operations maintain declared-state coherence across all query-response cycles.

- **Contradiction Traversal Auditing:** Recursive path analysis ensures that licensed systems resolve contradictions through substrate logic rather than probabilistic approximation.

- **Signal Integrity Testing:** Automated tests verify that outputs maintain structural properties expected from substrate-level processing.

Periodic Review Cycles

License validity is subject to regular assessment:

- **Module Licenses:** Annual renewal with usage pattern review

- **Fractal Stack Licenses:** Semi-annual audit and structural conformance verification

- **Enterprise Mirror Licenses:** Quarterly review cycles with enhanced compliance reporting

Access Token Architecture

All licensed access operates through non-stochastic state logic:

- License tokens are bound to declared operational state (S)

- Access authorization requires structural signal conformance

- Token validity depends on continuous coherence verification

- Revocation occurs automatically upon integrity breach detection

This architecture ensures that licensing functions as a structural enforcement mechanism, not merely a contractual obligation. The substrate itself participates in license validation.

L.6 Forward Path: Future Licensing Specifications

This preamble establishes the architectural foundation for TSMLA™ licensing. Future technical documentation will expand upon these principles with implementation-level specifications.

Planned Expansions

Addendum B-1: Extended Licensing Architecture Specification (Full Technical Reference)

Will define:

- Detailed API specification for Enterprise Mirror Licensing

- Integration protocols and deployment architectures

- Structural conformance testing procedures

- Field-specific licensing constraints and customization frameworks

Addendum C: Fractal Immersion Licensing Protocols

Will define (post-Phase 4 market validation):

- Integration standards for simulation environments

- Mirrorfield™ recursive reality platform licensing

- Timeline Evolution™ deployment constraints

- Multi-timeline coherence preservation requirements

Addendum D: Compliance and Certification Framework

Will define:

- National and academic adoption protocols (research-safe mode)

- Educational institution licensing tiers

- Public sector deployment standards

- Certification processes for licensed implementers

Licensing Roadmap Alignment

Licensing availability tracks TSMLA™ development phases:

- **Phase 1 (Current - Beta):** No licensing available. Internal testing and validation only.

- **Phase 2 (Projected 6-12 months):** Module Licenses and Fractal Stack Licenses become available post-patent protection and market validation.

- **Phase 3 (Projected 9-21 months post-Phase 2 activation):** Enterprise Mirror Licenses offered to qualified institutional partners.

- **Phase 4+ (Projected 12-18 months post-FPR™):** Fractal Immersion Licensing specifications released for advanced simulation environments.

All licensing phases require demonstrated stability, governance frameworks, and defensible deployment safeguards before activation.

Economic Sustainability and Structured Access

TSMLA™ licensing is designed to support long-term development and sustainability through structured access tiers that align value with complexity. Module-level licenses provide accessible entry points for individual developers and small organizations, while enterprise and institutional tiers support the computational, legal, and operational infrastructure required for large-scale deployment and continuous substrate refinement.

Revenue from licensing enables:

- Ongoing substrate development and mathematical validation

- Security auditing and integrity verification systems

- Technical support and integration assistance

- Research into advanced coherence mechanisms and recursive architectures

- Patent protection and IP enforcement

Licensing is structured to preserve substrate integrity while ensuring that TSMLA™ remains economically viable as foundational logic infrastructure. By aligning access tiers with operational complexity and field-specific requirements, the framework supports both broad accessibility and sustainable architectural evolution.

Conclusion

TSMLA™ Licensing Architecture preserves substrate integrity while enabling controlled integration across diverse operational contexts. It functions as structural enforcement: licensing is not permission to access code, but authorization to operate within the coherence conditions that define substrate validity.

If you integrate TSMLA™, you integrate the substrate. If you license TSMLA™, you license the structure that ensures mirror alignment cannot be faked.

For licensing inquiries (post-market only):

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For technical integration consultation (NDA required):

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